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ABSTRACT

This study attempted to discover the distribution of feelings of security and insecurity in the population of Illinois Central College (ICC) and whether significant differences exist among various subgroups. A 10 per cent stratified random sample of students were administered Maslow's Security-Insecurity Inventory. No significant difference was found between ICC students and Maslow's norm population. No significant difference was found among the curriculum groups of business, health, technical, and agricultural students, or between transfer and terminal students. Day students, however, were found to differ at the .01 level of significance from night students. They showed less confidence, less stability, and a greater concern with self-identity in relation to present and future worlds. The author stated that the insecure person tends to be more dogmatic, less effective in critical thinking, and less creative than the secure person. He recommended that student personnel workers facilitate security-need satisfaction by offering students a safe, confidential relationship with an understanding adult, and that instructors offer warm encouragement, success experiences, and increased individual attention to help aleviate students' feelings of insecurity. (MC)

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PSYCHOLOGICAL SECURITY-INSECURITY OF ILLINOIS CENTRAL COLLEGE STUDENTS

DAVID R. GROUT

A Thesis Submitted in Partial
Fulfillment of the Requirements
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D. R. G.

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CHAPTER I

INTRODUCTION

Introductory Statement

No affective need of junior college students is as vitally important to success both within and without the classroom as is the need for psychological security. Until student needs for psychological security are satisfied beyond some basic level, academic and social behavior will be dominated by this pressing, unfulfilled need. Psychologically insecure students are likely less creative, less able to perform critical thinking, and are in general, less effective as persons in all realms of their functioning than psychologically secure students.

That satisfaction of security needs may be a necessary precondition to critical thinking and thus, effective decision making, is suggested by Kemp's research on the effects of dogmatism on critical thinking. In his study, Kemp used Rokeach's Dogmatism Scale (Form E) to form two groups of students, those characterized as open-minded and those who were close-minded. He then used two problems that were in part related to security needs to test these students' ability to perform critical thinking. Kemp found open-minded students to be superior to close-minded in critical thinking at the .01 level of significance.[1]

According to Kemp, intolerance of ambiguity likely impels the insecure, close-minded person to conclude decision-making processes before fully considering all relevant alternatives. The close-minded person likely distorts or narrows the problem, thus changing it from one which offers a form of threat, to one which allows satisfaction of security needs.[2] Kemp writes of the difference between the open- and close-minded:

> Decisions whose outcomes would provide more security, greater maintenance of the status-quo, and more approval from authority figures would be more acceptable to the close-minded . . . those decisions which may offer a greater breadth of experience and more independence, and which encompass a wide range of facts and lead to broader and satisfying relationships with people are more attractive to those with open minds.[3]

Maslow theorizes that the need for physical and psychological security may dominate behavior of the insecure person. Capacities of such a person, e.g. receptors, effectors, and the intellect, are used primarily as tools for satisfying this pressing need.[4] The child-like spontaneity characteristic of creativity found in all self-actualizing people (Maslow's super healthy people) is likely throttled and inhibited by such a pressing and behavior determining need.[5] The implication of these ideas is that junior college students who are psychologically insecure will not develop and exercise their creativity fully in their junior college work.

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[1] Gratton C. Kemp, "Effect of Dogmatism on Critical Thinking," School Science and Mathematics, 60:316-318 (April, 1960).

[2] P. 318.

[3] Gratton C. Kemp, Intangibles in Counseling, p. 178.

Insecure students whose creativity is stifled, and whose ability to think critically is concomitantly hampered by closure, cannot function in a truly effective way in any area of endeavor. Thus, social as well as academic success commensurate with individual potentials is highly unlikely for such students. The result of attempting junior college work for such insecure students may well be failure, or dropping out of school.

It is the contention of this writer that all student needs affecting success in junior college work should be the concern of junior college staff. Operationally, no dichotomies exist between various functioning areas; for example, needs of students are simultaneously cognitive and affective. Studies reviewed by Hall and Lindzey show "that perceiving, learning, remembering, and thinking are influenced by needs, interests, moods and emotions."[6] Certainly most junior college staff would agree that perceiving, learning, remembering, and thinking are important concerns. Few would say or show through actions, however, that needs, interests, moods, and emotions are their concern. Yet, if cross-influences exist, as Hall and Lindzey's review suggests, all psychological functions of students that may alter success in junior college work need to be understood by junior college staff.

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[4] A. H. Maslow, Motivation and Personality, p. 84.

[5] P. 224.

Sanford writes of the college student's personality, and implications for curriculum and personnel planning:

> . . . the person functions as a unit . . . we cannot make any categorical separation of the "intellect" and the rest of the person. Changes in what might be called the intellect, changes in knowledge and in modes of thought, if they amount to anything, would bring with them changes in the rest of the personality, just as changes in the rest of the personality leave the individual in a different state of receptivity to knowledge and facts.[7]

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[6] Calvin S. Hall and Gardner Lindzey, Theories of Personality, p. 522.

[7] Nevitt Sanford, "Implications of Personality Studies for Curriculum and Personnel Planning," in Robert L. Sutherland and others, eds., Personality Factors on the College Campus, p. 6.

Although Sanford is concerned with the four-year college student, his view has implications for the junior college student as well. That is, personality change both influences and is influenced by, experiences in the junior college classroom. It follows that a change in satisfaction of psychological security needs of students may facilitate or restrict learning, depending on the direction of such change.

That student needs should be met by services offered is a common theme within the field of student personnel services. Mueller, for example, writes, "the factors which . . . establish the philosophy of college personnel work have always included . . . the needs and characteristics of students."[8] Although Mueller is writing about the four-year college, the goal of need satisfaction of students is also expressed at the junior college level by many writers (Blocker, Plummer, and Richardson, 1965; Medsker, 1960; Brumbaugh, 1954; and

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[8] Kate Hevner Mueller, Student Personnel Work in Higher Education, p. 501.

Raines, 1965).[9]

Concern with student need satisfaction is expressed at Illinois Central College (ICC) where this study was conducted. In a statement of policy concerning the working objectives of student personnel services at ICC, Dr. Niehaus, Dean of Student Personnel Services, writes that "the prevailing student personnel policy is characterized by a recognition and understanding of individual needs. . . ."[10]

Only when affective as well as cognitive and other needs are understood can student personnel workers at ICC and elsewhere more effectively seek to implement the often expressed goal of providing services to satisfy student needs. It is not enough to say that these needs are important; research must provide a clear picture of affective needs so that services offered will truly satisfy needs of students.

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[9] Clyde E. Blocker and others, The Two-Year College: A Social Synthesis, p. 240; Leland L. Medsker, The Junior College: Progress and Prospect, p. 7; A. J. Brumbaugh, "Student Personnel Work in Transition," Junior College Journal, 25:18 (September, 1954); Max R. Raines, "Report to the Carnegie Corporation on Appraisal and Development of Junior College Student Personnel Programs," in Report to Carnegie Corporation, November, 1965, Junior College Student Personnel Programs; Appraisal and Development, p. 8.

[10] Illinois Central College, Student Personnel Services: The Vital Link, n.p.

Knowledge of affective needs is not the sole concern of the student personnel workers in a junior college. These needs are also of vital importance to instructional staff. Garrison writes that emotional problems are a common classroom occurrence, and that junior college teachers should, therefore, act in the role of teacher-counselor in fulfilling their normal professional duties.[11] Taylor reports that individual conferences with students are necessary for student success, and that a full understanding of students' affective needs would facilitate more effective communication between himself and students in these interviews.[12] Bossone recommends the teacher of remedial English provide warm encouragement to the insecure remedial student through use of teacher-student conferences so as to facilitate student success.[13] Roueche writes that male remedial students are more sensitive to loss of status involved in remedial courses than females. "Male students exhibiting high anxiety are the first to see the class as conflicting with their own personal motivations and the first to drop out of the course."[14]

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[11] Roger H. Garrison, "Teaching as Counseling," Junior College Journal, 34:12 (October, 1963).

[12] Interview with Karl K. Taylor, Instructor in Communications, Illinois Central College, East Peoria, Illinois, June 9, 1969.

[13] Richard M. Bossone, The Writing Problems of Remedial English Students in Community Colleges of the City University of New York, City University Research and Evaluation Unit for Special Programs, 1969, p. 54.

A knowledge of affective needs of students will help the junior college bring democratic ideals of the open-door policy into a reality of experience for its students. The ideals extended by this policy to what is likely the most heterogeneous student body in higher education today include: (1) the provision of opportunities so each American may achieve whatever his ambitions and abilities allow, and (2) education of a continuing nature for all people. If the sole function of the junior college is to weed out the unfit through rejection at mid-semesters, it will have failed in seeking these democratic ideals. Instead, the junior college must seek to rehabilitate students who are educationally handicapped. For those students not damaged by competition and devaluation of prior educational experience, the junior college must offer the opportunity for further development.[15] Understanding affective needs such as the need of students for psychological security will help the junior college succeed in the rehabilitative and developmental tasks posed by the democratic ideals expressed in the open-door policy.

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[14] John E. Roueche, Salvage, Redirection, or Custody?, Monograph of the ERIC Clearinghouse for Junior College Information, American Association of Junior Colleges, 1968, p. 46.

Given that pressing needs for psychological security may dominate patterns of thinking, perceiving, and behaving, and that such influence is detrimental to student success in the junior college, it becomes vital for junior college staff to understand student needs for psychological security. Of what use is the open door, and the junior college's location near home, if after entering, students fail because needs for psychological security block effective learning and decision making? It is clear that the junior college can best succeed as a student centered institution if security needs of its students are understood by a concerned staff.

Statement of Problem

The problem, then, is: How are feelings of psychological security-insecurity distributed generally through the entire population of a given junior college, and are there any differences in feelings of psychological security-insecurity among various groups within this overall population?

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[15] James D. McHolland, "From Stress to the Release of Human Potential," address delivered to the Illinois College Personnel Association, September 27, 1968, Chicago, Illinois.

Null Hypotheses

The following null hypotheses were tested:

1. There is no significant difference between the mean level of security-insecurity of the overall, general population of students at Illinois Central College and the mean level of security-insecurity found by Maslow (N = 2,020) as given in Table VI of the Manual for the Security-Insecurity Inventory.
2. There is no significant difference between the form of the distribution of security-insecurity among Illinois Central College students and the form of the distribution found by Maslow (N = 2,020) as given in Table VI of the Manual for the Security-Insecurity Inventory.
3. There is no significant difference among mean levels of security-insecurity as found in: (1) Business students; (2) Health students; (3) Technical students; and (4) Agriculture students, of Illinois Central College.

4. There is no significant difference between mean levels of psychological security-insecurity in Day and Night students at Illinois Central College.
5. There is no significant difference between mean levels of psychological security-insecurity in Transfer and Terminal students at Illinois Central College.
6. The difference in psychological security-insecurity between Day and Night Transfer students does not differ significantly from the difference in psychological security-insecurity between Day and Night Terminal students.

Definition of Terms

The term "security" is defined by the summation of the security subsyndromes; the term "insecurity" is defined by the summation of the insecurity subsyndromes. These subsyndromes are contained in Table 1.

The term "need" is defined as "the lack of something which, if present, would tend to further the welfare of the organism . . . it is implied . . . that the

TABLE 1

SECURITY-INSECURITY SUBSYNDROMES[a]

Insecurity	Security
1. Feeling of rejection, of being unloved, of being treated coldly and without affection, or of being hated, of being despised.	1. Feeling of being liked or loved, or being accepted, of being looked upon with warmth.
2. Feelings of isolation, ostracism, aloneness, or being out of it; feelings of "uniqueness."	2. Feelings of belonging, of being at home in the the world, of having a place in the group.
3. Constant feelings of threat and danger; anxiety.	3. Feelings of safety; rare feelings of threat and danger; unanxious.
4. Perception of the world and life as dangerous, threatening, dark, hostile, or challenging; as a jungle in which every man's hand is against every other, in which one eats or is eaten.	4. Perception of the world and life as pleasant, warm, friendly, or benevolent, in which all men tend to be brothers.
5. Perception of other human beings as essentially bad, evil, or selfish; as dangerous, threatening, hostile, or challenging.	5. Perception of other human beings as essentially good, pleasant, warm, friendly, or benevolent.
6. Feelings of mistrust, of envy or jealousy toward others; much hostility, prejudice, hatred.	6. Feelings of friendliness and trust in others; easy affection for others.
7. Tendency to expect the worst; general pessimism.	7. Tendency to expect good to happen; general optimism.

TABLE 1 (continued)

8. Tendency to be unhappy or discontented.	8. Tendency to be happy or content.
9. Feelings of tension, strain, or conflict, together with various consequences of tension, e.g., "nervousness," fatigue, irritability, nervous stomach, and other psychosomatic disturbances; nightmares; emotional instability, vacillation, uncertainty, and inconsistency.	9. Feelings of calm, ease, and relaxation; unconflicted; emotional stability.
10. Tendency to compulsive introspectiveness, morbid self-examination, acute consciousness of self.	10. Tendency to outgoingness; ability to be world-, object-, or problem-centered rather than self- or ego-centered.
11. Guilt and shame feelings, sin feelings, feelings of self-condemnation, suicidal tendencies, discouragement.	11. Self-acceptance, tolerance of self, acceptance of the impulses.
12. Disturbances of various aspects of the self-esteem complex, e.g., craving for power and for status, compulsive ambition, over-agression, hunger for money, prestige, glory, possessiveness, jealousy of jurisdiction and prerogative, overcompetitiveness and/or the opposite; masochistic tendencies, over-dependence, compulsive submissiveness, ingratiation,	12. Desire for strength or adequacy with respect to problems rather than for power over other people; firm, positive, well based self-esteem; feeling of strength; courage.

TABLE 1 (continued)

inferiority feelings, feelings of weakness and helplessness.	
13. Continual striving for and hunger for safety and security; various neurotic trends, inhibitions, defensiveness, escape trends, ameliorative trends, false goals, fixations on partial goals; psychotic tendencies, delusions, hallucinations, etc.	13. Relative lack of neurotic or psychotic tendencies; realistic coping systems.
14. Selfish, egocentric, individualistic trends.	14. "Social interest" (in Adlerian sense); cooperativeness, kindliness, interest in others; sympathy.

[a] A. H. Maslow, "The Dynamics of Psychological Security-Insecurity," Character and Personality, 10:334-335 (1942).

need or lack in question directly evokes action. . . ."[16]

The term "junior college" is used synonymously with "community college" in this study and refers to post-high school public two-year institutions that function, at least in part, as a service to their community.

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[16] Horace B. English and Ava C. English, A Comprehensive Dictionary of Psychological and Psychoanalytical Terms, p. 338.

The term "Transfer student" in this study is defined as the student enrolled in a junior college for the purpose of attaining sufficient credits for transfer to a four-year institution and the completion of a Baccalaureate. At Illinois Central College, the transfer student is enrolled in curriculums designated in Table 2 by three consecutive digits, the series beginning with zero, e.g., 010 and 090.

The term "Terminal student" refers to those students who do not expect to continue their formal full-time collegiate training beyond the junior college.[17] Terminal students at Illinois Central College are enrolled in curriculums designated in Table 2 by three consecutive digits, the series beginning with a number other than zero, e.g., 110 and 900.

"Night students" in this study are those students attending classes at Illinois Central College from 5:30 P.M. till 10:00 P.M. only.

"Day students" are those students at Illinois Central College attending classes from 8:00 A.M. till 5:00 P.M., plus those whose classes are scheduled both

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[17] Leland L. Medsker, The Junior College: Progress and Prospect, p. 7.

TABLE 2

CURRICULUMS AT ILLINOIS CENTRAL COLLEGE

Transfer Curriculums	
010	Pre-Agriculture
020	Architecture and Art
030	Business Administration and Commerce
040	Education
050	Pre-Engineering
060	Liberal Arts and Sciences
070	Pre-Medicine
071	Pre-Pharmacy
072	Pre-Dental
073	Pre-Veterinary
074	Pre-Nursing
075	St. Francis Hospital
090	General Studies

Terminal Curriculums	
100	Agriculture Business
101	Agriculture Production and Management
200	Accounting
205	Commercial Art
210	Business Management
215	Secretarial
216	Medical Secretarial
217	Legal Secretarial
218	Executive Secretarial
219	Co-operative Office Education
220	Office Machines and Procedures
221	Clerk Typist
301	Operating Room Assistant
310	Physical Therapy Assistant
320	Medical Record Technician
330	Registered Nurse
401	Architectural Drafting Technology
402	Engine Power Technology
403	Chemical Technology
404	Data Processing Technology
405	Electronics Engineering Technology
406	Industrial Electronics Technology
410	Mechanical Technology
411	Machine Design
412	Manufacturing
413	Internal Combustion Engines
420	Industrial Drafting Technology
430	Auto Mechanics
601	Police Administration
900	Continuing Education

during the day and evening sessions.

The term "Agriculture student" refers to students enrolled at Illinois Central College in curriculums 010, 100 and 101.

"Business student" in this study means those students enrolled in curriculums 030, 200, 210, 215, 216, 217, 218, 219, and 221.

The term "Health student" includes all students at Illinois Central College enrolled in curriculums 070, 071, 072, 073, 074, 075, 301, 310, 320, and 330.

"Technical student" refers to all Illinois Central College students enrolled in curriculums 401, 402, 403, 405, 406, 410, 411, 412, 413, 420, 430, and 601.

Limitations of the Study

This study is restricted to an examination of psychological security-insecurity as measured by Maslow's S-I Inventory. Although 14 subdefinitions are included in the syndrome of security-insecurity as subsyndromes, the S-I Inventory yields only a single score. Thus, results of this study reflect security-insecurity only at the syndrome level. No information on feelings of students within subsyndromes is available from this study.

The study might best have been conducted earlier in the school year than it was. Data collection dates were April 16, 17 and 18, 1969, after the last date in the second semester for students to withdraw from classes because of failing grades. The researcher assumes some of the first semester students who were very insecure left and did not enroll for second semester classes. Also, some per cent of second semester students had withdrawn or left by the time data was collected. This study may have, therefore, been conducted at a time when only the most psychologically secure students of the school year were left on campus.

The use of a self-report test to reveal basic needs that are theorized as largely unconscious may be a limitation of this study.[18] The self-report design of Maslow's S-I Inventory seems to contradict his theory, and yet the construction of this instrument was determined by the ability of each item to discriminate between those who were clinically judged by Maslow and others to be insecure and secure.[19] This procedure suggests that unconscious motivations may influence conscious awareness of feelings, and that the S-I Inventory may be measuring the largely unconscious basic need of psychological security. However, it is more likely that the S-I Inventory only measures conscious feelings. This study may, therefore, not reflect information concerning important unconscious determinants of psychological security-insecurity.

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[18] A. H. Maslow, "A Theory of Human Motivation," Psychological Review, 50:389 (July, 1943).

[19] A. H. Maslow and others, "A Clinically Derived Test for Measuring Psychological Security-Insecurity," The Journal of General Psychology, 33:22-24 (July, 1945).

CHAPTER II

REVIEW OF RELATED LITERATURE

Need for Research

Few studies have researched personality characteristics of junior college students. Cross (1968) concludes such research "is very scanty indeed."[1] Butler (1968), after reviewing available literature, writes that he found no research studying needs of junior college students.[2] Blocker and Plummer (1965),[3] and Moomaw (1967)[4] point out that most studies describe various intellectual factors, e.g. test scores and grade point average, of junior college students. Roueche (1967) writes that the typical institutional research study has been concerned only with the transfer student who leaves the junior college in pursuit of the B.A. degree.[5] The search of literature made by this author confirms the observations of these writers.

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[1] K. Patricia Cross, The Junior College Student: A Research Description, p. 51.

[2] Robert R. Butler, Differences in Need Press Variables as Perceived by University and Junior College Students, Research in Education ED 023 386, p. 3 (1968).

[3] Clyde E. Blocker and Robert H. Plummer, The Two-Year College: A Social Synthesis, p. 106.

[4] Robert Clayton Moomaw, "Need Press Differences Among Community College Students," Unpublished doctoral dissertation, Ohio State University, 1967, p. 9.

Research on personality characteristics of junior college students is needed for junior colleges to become truly effective student-centered institutions. Plans and decisions of junior college staff should, as normative practice, be based on as complete knowledge as possible of student personality needs and characteristics. That such has not been the case is dramatically implied by the dearth of research in this area.

It seems clear that the junior college student is different in many ways than the typical student attending a four-year institution. The junior college student is less able academically, comes generally from a lower socioeconomic background, and is part of a more heterogeneous student body, than his counterpart in four-year colleges and universities. It does not seem wise to use research performed outside the junior college as a basis for decisions affecting students within the junior college.

Finally, research should study all members of the junior college population. Medsker writes that "programs and services are planned for full-time, day students and the assumption is usually made that what is good for them will be good for all others."[6] Research on personality needs and characteristics of all students of the junior college, e.g. night students, should be conducted to test the validity of this assumption.

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[5] John E. Roueche, "Gaps and Overlaps in Institutional Research," Junior College Journal, 38:21 (November, 1967).

Scope of the Review

Review of literature for this study includes three areas of concern relevant to understanding security-insecurity needs of junior college students. First, the theoretical foundations of security-insecurity will be reviewed. The second area concerns studies conducted on junior college populations for the purpose of researching security-insecurity needs. Research with implications for any of the 14 subsyndrome definitions of security-insecurity will be reviewed. The last area of concern reviews research studies that have used Maslow's Security-Insecurity Inventory as instrumentation.

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[6] Leland L. Medsker, "The Junior College Student," in Report to Carnegie Corporation, November, 1965, Junior College Student Personnel Programs: Appraisal and Development, p. 24.

Theoretical Foundations of Security-Insecurity

This section reviews briefly the concept of psychological security as found in the theories of Sullivan, May, Rokeach, and Maslow. The most comprehensive treatment of security-insecurity feelings is presented by Maslow. His theory is, therefore, presented last.

Security is an important concept in Sullivan's interpersonal theory. When the usual pattern of interpersonal exchanges is disrupted, tension and anxiety result. Activities performed to dispel this tension and anxiety are termed by Sullivan, "security operations." These operations seek to restore a feeling of safety and self-esteem to the person, and they "always interfere with whatever other tensions and energy transformations they happen to coincide with."[7]

Anxiety, an undifferentiated and diffuse feeling, is seen by May as threatening the security base forming the core or essence of personality.[8] Anxiety results when values essential to this security base, or pattern, are threatened. If the person chooses a nonproductive, negative way of coping with this anxiety, his thinking may become more dogmatic and rigid, and generally he will have a lessened capacity for self-awareness.[9]

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[7] Harry Stack Sullivan, The Interpersonal Theory of Psychiatry, p. 373.

[8] Rollo May, The Meaning of Anxiety, pp. 191-193.

Part of Rokeach's Open and Closed Belief System is a characteristic of the central-peripheral dimension similar to Maslow's fourth subsyndrome of security-insecurity. For Rokeach, the open mind sees the world as essentially friendly, while the closed mind perceives the world as a threatening place.[10] The person who is closed, acts to remove this threat and to allay feelings of anxiety. This need to defend against threat is one of two motives proposed by Rokeach; the other is the need to know. The relatively closed person may protect against threat by rejecting anxiety creating information. At the same time, the illusion is created that whatever information is allowed into the belief system satisfies the need to know and understand. Both needs are, therefore, satisfied, and the closed mind perpetuates itself.[11]

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[9] Pp. 224-225.

[10] Milton Rokeach, The Open and Closed Mind, p. 56.

[11] Pp. 68-70.

Feelings of security are grouped into different levels of generalization by Maslow. He terms his concept of security-feelings a syndrome, and defines a syndrome as "a general flavor which can be detected or savored in practically everything that the person does, feels, or thinks."[12] The syndrome obeys laws of its own that are not necessarily the same as those laws governing the parts making up the syndrome. The totality of various personality syndromes tends to be integrated and each may be reflected in any single behavioral response.

> As John Doe laughs and responds to a joke, we can theoretically tease out from among the various determinants of this unitary act, his security level, his self-esteem, his energy, his intelligence, etc.[13]

Studies performed at the syndrome level are referred to by Maslow as studies at the first level of magnification; studies performed on subsyndromes, e.g., the craving for power subsyndrome of the security-insecurity syndrome,[14] are studies at the second level of magnification; and studies performed on ways a subsyndrome may be expressed, e.g., a hungering for money, are studies at the third level of magnification.[15]

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[12] A. H. Maslow, "The Dynamics of Psychological Security-Insecurity," Character and Personality, 10:331 (1942). (Hereafter "Security-Insecurity")

[13] A. H. Maslow, "Dynamics of Personality Organization," The Psychological Review, 50:549 (November, 1943). (Hereafter "Personality")

[14] Maslow, "Security-Insecurity," p. 335.

Maslow theorizes five basic needs arranged in a hierarchy according to their propotency: (1) physiological needs, (2) safety needs, (3) love needs, (4) esteem needs, and (5) self-actualization needs.[16] As lower order needs are satisfied, needs at the next level in the hierarchy gain in potency and press for satisfaction. The emergence of a need into a position of potency comes about gradually as an increasing per cent of the need immediately below it is satisfied. The organism's need for safety, for example, would have to be 75 per cent satisfied before the needs next in the hierarchy, love needs, may 90 per cent emerge.[17] Most needs are never fully satisfied, and behavior may be an expression of several needs simultaneously being felt in varying per cents of potency.

Although the definition of the security syndrome contains a reference to the need for love (subsyndrome 1) and self-esteem (subsyndrome 12), this syndrome is prepotent primarily within the safety need level of the hierarchy.[18] If the security needs are well satisfied early in life, the individual may not be motivated primarily by safety needs except in times of emergencies, such as war or societal disorganization. Otherwise, usually only in the neurotic and near-neurotic individual, or in the economic and social underdog, will an expression of the security needs be clearly seen.[19] The compulsive-obsessive neurotic provides the best example of behavior to satisfy security needs in his frantic attempts to "order and stabilize the world so that no unmanageable, unexpected, or unfamiliar dangers will ever appear."[20]

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[15] Maslow, "Personality," p. 543.

[16] A. H. Maslow, "A Theory of Human Motivation," Psychological Review, 50:394 (July, 1943). (Hereafter "Theory")

[17] Pp. 388-389.

Maslow identifies 15 reactions of insecure persons that are expressions of the security-insecurity syndrome:

> 1. In every insecure person with whom the writer has worked he has always found a continual, never dying longing for security.
>
> 2. Almost continual action toward regaining this individually defined security was

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[18] Maslow, "Security-Insecurity," pp. 334-335.

[19] Maslow, "Theory," pp. 378-379.

[20] P. 379.

found in all cases.

3. Discouragement reactions may be a response . . . to anything . . . that drives home the realization of rejection, being hated, loss of love, etc.

4. Revenge reactions for love already lost or for a threatened loss [may be found].

5. Defense reactions to prevent further loss of love [may be found].

6. Ameliorative reactions to make the bad situation more bearable [may be found].

7. Attack reactions upon the situations which bring about the insecurity in the attempt to change or improve them [may be found].

8. The undermining of self-esteem [may be found].

9. The insecure person will tend always to hide from himself as long as possible the conscious realization of rejection, of loss of love and respect.

10. Other processes that perpetuate the adjustment or the life style [will also reflect the person's insecurity].

11. The effects of all of these reactions on other people serve further to perpetuate and to re-enforce the insecurity.

12. Limiting the base of security (or safety) [may be found].

13. Neurotic exaggeration of the drive for security [may be found].

14. The setting up of habits that may outlive their original functions [may be found].

15. The tendency to defend the system of defenses [may be found].[21]

These reactions are interpreted by the writer to be at the third level of magnification. Such behavior as may be expressive of any of these 15 emerge, according to Maslow's theory, when the need for psychological security becomes relatively prepotent over other needs in the hierarchy.

Studies of Security-Insecurity of Junior College Students

This researcher found no studies of security-insecurity of junior college students. Only a few studies were found with even tangential relationships to the problems of security-insecurity. While it is difficult to draw implications from such peripheral studies, they are reviewed in this section for whatever value they may have in gaining a better understanding of security-insecurity problems in the junior college.

Psychological insecurity in general mathematics remedial students is suggested by research identifying their significant characteristics as:

1. A dislike for and lack of confidence in handling mathematics;
2. An approach to testing characterized by nonflexible organization;

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[21] Maslow, "Security-Insecurity," pp. 336-342.

3. Emotional disturbances associated with awareness of personal inadequacy;
4. Lack of self-confidence in relations with instructors;
5. A prevalent prediction of unfavorable outcomes for self and peers in school situations.[22]

The third characteristic listed is probably the most important finding for purposes of this review; all five points, however, are presented to give a fuller picture of this kind of junior college student.

Cross summarizes Warren's study as representative of the description of personality characteristics of junior college students that seems to be emerging. In comparison to students at a private college, "junior college students were the most cautious, prudent, and controlled, most apprehensive and rigid in their concerns over grades and academic standing."[23] The implication is that junior college students may be more insecure than four-year college students.

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[22] *Research Problems in Mathematics Education*. Cooperative Research Monograph No. 3, p. 16 (1960), quoted by John E. Roueche, *Salvage, Redirection, or Custody?*, Monograph of the ERIC Clearinghouse for Junior College Information, American Association of Junior Colleges, 1968, p. 14.

[23] Cross, p. 33.

Part of the suggested greater insecurity of junior college students may be due to lack of opportunities for development of confidence within the junior college environment. Butler found that students responding to Stern's College Characteristics Index saw the junior college "as providing less opportunity for activities in which students are encouraged to develop leadership and self-assurance."[24]

Data presented by Panos suggests that students entering the junior college are insecure concerning their academic abilities. In Panos' study, 6,860 entering students of 7 junior colleges rated themselves on intellectual self-confidence. Students from these colleges who rated themselves above average in self-confidence ranged from a high of 33.1 per cent at one college to a low of 12.3 per cent at another.[25]

Risk-taking preference was a part of research done by Stewart. In Stewart's study, several items were classified as to degree of risk involved, e.g. the subject was asked if he would sacrifice high wages in return for assurance he would not lose his job, or if he would rather have high pay in a job where the risk of losing all was high. Females were found by Stewart to prefer the low risk job; responses of males revealed no conclusive pattern. Inferences concerning sex differences in psychological security-insecurity cannot, however, be made with confidence as Stewart points out that "women may perceive a ready source of steady income as a realistic consideration in view of possible future plans for marriage and family."[26]

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[24] Butler, pp. 5-6.

[25] Robert J. Panos, Some Characteristics of Junior College Students, American Council on Education Report Number ACE-RR-Vol-No-2-1966, p. 17.

Studies Using the S-I Inventory

Studies using the S-I Inventory can be grouped into two categories: (1) research with implications for the validity of the instrument, and (2) studies providing information concerning the characteristics of secure and insecure persons.

Hanawalt predicted girls in a correctional home and persons in a school for the deaf would be psychologically insecure. When he tested these groups using the S-I Inventory, Hanawalt found both to be insecure as predicted.[27] Hanawalt also studied validity of the S-I Inventory by asking six girls who were advanced psychology majors and who had met together as a class for two semesters to rate each other on security-insecurity. A correlation of .80 was found between self-rating of the girls and test scores on the S-I Inventory.[28]

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[26] Lawrence H. Stewart, Characteristics of Junior College Students in Occupationally Oriented Curricula, University of California Report No. R-1966-1, pp. 13-14.

A comparison was made between the Minnesota Multiphasic Personality Inventory (MMPI) and the S-I Inventory by Mehlman and Kaplan to see if these two instruments would similarly group healthy students as healthy, and less than healthy students as non-healthy. These authors found the S-I Inventory and the MMPI to discriminate between healthy and unhealthy "individuals in a comparable fashion."[29]

The S-I Inventory was given to 260 high school seniors from a midwestern city of approximately 25,000 by Gough. Scores were found to be unrelated to intelligence, academic performance, or socioeconomic level of subjects.

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[27] Nelson G. Hanawalt, (review of the S-I Inventory), in Oscar K. Buros, ed., The Fifth Mental Measurements Yearbook, p. 107.

[28] P. 107.

[29] Benjamin Mehlman and Janice E. Kaplan, "A Comparison of Some Concepts of Mental Health," Journal of Clinical Psychology, 14:122 (April, 1958).

The S-I Inventory was found, however, to be related to some scales on the MMPI. Gough writes:

> Certain sex differences in the correlations indicated that hypochondriacal complaints play a more prominent role in the security and insecurity of girls than of boys, and that feminine tendencies in boys have graver social consequences than masculine tendencies in girls.[30]

Muench questions the validity of the S-I Inventory. When S-I Inventory scores before and after psychotherapy were compared to therapists' judgments of client progress, little agreement was found. Muench concludes either the S-I Inventory does not measure what it should, or the judgments of therapists are inaccurate.[31]

Several studies give insights into characteristics of secure and insecure persons. Bennett and Jordan found that secure persons are more impunitive than insecure individuals, while insecure persons are more extrapunitive; secure and insecure groups did not differ on intropunitiveness.[32] Hanawalt correlated the S-I Inventory with the Pressey Interest-Attitude Test and concludes, "apparently, emotionally immature as well as mature people can feel secure."[33]

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[30] Harrison G. Gough, "A Note on the Security-Insecurity Test," Journal of Social Psychology, 28:261 (November, 1948).

[31] George A. Muench, "An Investigation of Time-Limited Psychotherapy," Journal of Counseling Psychology, 12:296-297 (Fall, 1965).

[32] Carson M. Bennett and Thomas E. Jordan, "Security-Insecurity and the Direction of Aggressive Responses to Frustration," Journal of Clinical Psychology, 14:166-167 (April, 1958).

A rank order correlation technique was applied by Ferrara and Milofsky to S-I Inventory scores and the degree of reduction in contradictory information. A correlation significant at the .05 level was found and Ferrara and Milofsky, interpreting their result, write that "the insecure individual who experiences greater stress . . . has a greater need to escape from cognitive dissonance, even if this escape requires the suppression of information."[34]

Gill and others placed 249 college juniors and seniors into three groups on the basis of S-I Inventory scores: (1) secure, (2) average, and (3) insecure, students. These groups then took Rokeach's Dogmatism Scale (Form E), and Thurstone's Closure Flexibility Scale. In addition, grade point average data was obtained as an indication of academic ability. Gill and others write of the interesting differences found:

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[33] Hanawalt, p. 107.

[34] Anthony J. Ferrara and Charles A. Milofsky, "Insecurity as a Factor in the Resolution of Contradiction," Psychological Reports, 14:790 (June, 1964).

> Groups demonstrating a high degree of security not only tend to think more openly but as a group are more effective academically. This is more true for girls than boys. It appears at least up to a certain point that how secure an individual feels may be a direct indication of his effectiveness as a person and thus his academic ability.[35]

Summary of Literature Review

The review of literature related to psychological security-insecurity reveals several important points.

First, several theorists use psychological security as an important part of their theories of motivation and personality. These are Sullivan, May, Rokeach, and Maslow. Of these theorists, Maslow treats psychological security-insecurity in the greatest detail and most extensively. Although these theorists differ from one another, all express the common view that psychological insecurity tends to act as a motivating force causing undesirable behavior. For May and Rokeach, the person is likely to be dogmatic if he is insecure; for Sullivan and Maslow, insecurity beyond some point tends to dominate behavior and the person will act to satisfy his security needs.

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[35] Newell T. Gill and others, The Effect of Security as an Independent Variable on Selected Variables Related to Perception, Cognition, and Academic Achievement, Research in Education ED 011 796, p. 19 (September, 1966).

That studies of psychological security-insecurity of junior college students are not available is the second point of this summary.

Third, few studies of personality characteristics of junior college students have any implications to offer concerning the security-insecurity of these students. Those that do have implications seem to be showing that junior college students as a group may be somewhat insecure. When compared to students in four-year institutions, junior college students may be more insecure.

Fourth, few studies have been published using the S-I Inventory as instrumentation. Those found by this researcher suggest the instrument may be valid and may agree with the MMPI in important ways. Also, research studies suggest the insecure person is more rigid and dogmatic in his thinking than the secure person, and is less academically able, as well.

CHAPTER III

DESCRIPTION OF RESEARCH PROCEDURES

Population and Samples

Population

Junior college students of Illinois Central College, East Peoria, Illinois, who were enrolled for the second semester of the 1968-69 school year, served as the population for this study. Illinois Central College serves District #514, a public junior college Class I district in central Illinois composed of Peoria, Tazewell, Woodford, Marshall, and McLean Counties. The combined population of these five counties is approximately 330,000.

Illinois Central College was selected for this study because of the convenience of its proximity to Illinois State University, and because of the combination of both rural and urban areas within District #514. Illinois' third largest city, Peoria, is located within a few miles of ICC. The population of Peoria and the towns nearby represents slightly more than one-third of the total population in District #514. In addition to being a major river, rail, air, and truck terminal for Illinois, Peoria has industries that include beverage distilling, and the manufacturing of farm machinery, air-conditioning and heating equipment, diesel engines, earth-moving equipment, and many others. Urban population centers in District #514 also include Bloomington in McLean County, and Pekin in Tazewell County.[1]

Illinois Central College serves a large rural area throughout its five counties. Farming is the major industry in the rural area with corn, soybeans, wheat, oats and hay leading crops, and beef and pork leaders in meat production.

It was the hope of the researcher that the combination of students from both rural and urban backgrounds would more likely provide information concerning psychological security-insecurity that could be generalized in whole or in part, to many other junior colleges. It was felt that a study conducted at Illinois Central College might be of more value than a similar study conducted solely on an urban or exclusively rural, junior college. The representation of both urban and rural groups in the student body is suggested by the listing of new students enrolled during the Fall Semester, 1968, by high school attended, as shown by Table 3 below. Although both urban and rural groups are represented at ICC, "the large majority of students commute from urban communities

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[1] Ray E. Howser, "Peoria," Encyclopedia Americana, 1963, vol. 21, pp. 559-560.

TABLE 3

NEW STUDENTS AT ICC FALL SEMESTER 1968-69 BY HIGH SCHOOL ATTENDED[a]

High School	Number of New Students
Pekin Community High School	178
Richwoods Community High School	142
Peoria High School	138
East Peoria High School	126
Manual High School	117
Limestone Community High School	95
[b]Washington Community High School	84
Woodruff High School	79
Spalding Institute	64
Academy of Our Lady	53
[b]Metamora Township High School	47
Bergan High School	39
Morton Community High School	35
[b]Chillicothe Community High School	33
[b]Eureka High School	25
[b]Roanoke-Benson High School	19
[b]Tremont High School	17
[b]Elmwood Community High School	15
[b]Deer Creek-Mackinaw High School	15
[b]Dunlap Township High School	14
[b]Farmington Community High School	13
[b]Princeville Community High School	13
[b]El Paso High School	11
[b]Timber Township High School	8
[b]Brimfield Community High School	6

[a] "Illinois Central College Student Body Overview Information," mimeo compiled by Student Personnel Services Staff, Illinois Central College, April 16, 1969, p. 2.

[b] Indicates schools that may be considered as located in predominantly rural areas.

of over ten thousand population."[2]

Descriptive data other than enrollment figures for the ICC student population Second Semester, 1968-69, are not available. A descriptive analysis of the student body is available, however, for the Spring Semester, 1968, as well as the age distribution of students for the Fall Semester, 1968-69. The assumption is made that the data furnished up to a year earlier than the date the study was completed is descriptive of the population enrolled Second Semester, 1968-69.

The age distribution of ICC students follows in Table 4. Excluding the category of unknown students (N = 200), 45 per cent of ICC students are between the ages of 16 and 19; 40 per cent are between the ages of 20 and 29; and 15 per cent are age 30 or older. The average age probably lies in the interval 20-29.

Twice as many men as women attend Illinois Central College.[3] During the Spring Semester, 1968, the ratio of freshmen male students to freshmen female students was

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[2] Glenn Roberson, "A Descriptive Analysis of Illinois Central's Student Body Spring Semester 1968," p. 3. Unpublished manuscript.

[3] Illinois Central College, Student Personnel Services: The Vital Link, p. 13.

TABLE 4

AGE DISTRIBUTION OF ICC STUDENTS
FALL SEMESTER 1968-69[a]

Age	Frequency
16-17	8
18	991
19	736
20-29	1,527
30-39	380
40-49	159
50-59	35
60-Over	2
Unknown	200
Total Enrolled	4,038

[a] "Illinois Central College Student Body Overview Information," mimeo compiled by Student Personnel Services Staff, Illinois Central College, April 16, 1969, p. 9.

"slightly under two to one."[4] The ratios of all male students to female students by day and evening attendance were 3:1 to 3:2, respectively.[5]

Most students at Illinois Central College are single. Thirty-eight per cent of all students in 1968 were married, with a large difference noted between day and night students. Of the day students, only 13 per cent were married while 68 per cent of the night students were married.[6]

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[4] Roberson, p. 3.

[5] P. 3.

The student body comes predominantly from stable, middle class homes. Eighty-seven per cent of students reported both parents reside at home while 13 per cent said one or both parents were deceased.[7] Only 7 per cent of heads of students' households are from professional vocations, 5 per cent are unskilled workers, and "the great majority of students, parents, or spouses are employed in the managerial, clerical, sales, skilled and semi-skilled occupations."[8] Fifteen per cent of students' parents had attended school less than eight years, 50 per cent had finished at least one year of high school, and approximately 20 per cent of "family heads had attended at least one semester or quarter of college."[9]

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[6] P. 4.

[7] P. 7.

[8] P. 7.

[9] P. 7.

Approximately 30 per cent of all students are transfer students,[10] 70 per cent of whom came from the University of Illinois, Illinois State University, Western University, Bradley University, or Canton Junior College.[11] Of the entire student body, approximately 96 per cent reside inside District #514.[12]

Illinois Central College students enjoyed average success in their academic work in high school. Their "college test scores are above average for high school seniors, but below average for four-year college freshmen."[13] The Composite ACT Score, when compared to other junior colleges, is two percentile points lower with a relative weakness in mathematics indicated.[14]

Many ICC students desire to enter the professions, and a majority plan to transfer to a four-year institution for completion of a Baccalaureate. Students' vocational choices tend to be unrealistic, often expressing status values and not real interests.[15]

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[10] P. 5.

[11] P. 9.

[12] P. 9.

[13] Illinois Central College, p. 14.

[14] Roberson, p. 5.

Enrollment figures by curriculum number and schedule type for all students enrolled at Illinois Central College Second Semester, 1968-69, are given in Table 5 below. The total number of students enrolled is 3,347.

In summary, the population chosen for this study is heterogeneous in age, marital status, sex, type high school attended, and enrollment choices. These factors indicate that Illinois Central College students are typical of students in many other junior colleges. Heterogeneity of socioeconomic background was also indicated, although more ICC students may come from the middle class than at other junior colleges. Clark, for example, found in a sample (N = 95) of San Jose Junior College students, that 23 per cent came from homes where the student's father was an upper white-collar worker, 60 per cent from homes of lower white-collar and upper blue-collar workers, and the remainder, 17 per cent, from homes where the father was a lower blue-collar worker.[16] Apparently, more San Jose Junior College students than ICC students come from the extreme upper and lower categories. A more complete

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[15] Illinois Central College, p. 14.

[16] Burton R. Clark, The Open Door College: A Case Study, p. 54.

TABLE 5

ILLINOIS CENTRAL COLLEGE ENROLLMENT
SECOND SEMESTER, 1968-69

Curriculum	Day	Evening	Total
010	20	1	21
020	21	3	24
030	132	46	178
040	214	48	262
050	56	8	64
060	323	42	365
070	131	1	132
090	486	65	552
100	36	0	36
200	50	19	69
210	119	25	144
221	6	1	7
301	9	0	9
310	9	1	10
320	7	0	7
330	38	4	42
401	203	65	268
410	27	10	37
420	15	0	15
430	1	0	1
460	6	4	10
601	11	5	16
900	146	932	1,078

study should be conducted, however, before definite conclusions are drawn. Academic ability is also heterogeneous, although the overall ability level may be slightly lower than at other junior colleges.

Samples

A total of 400 students was selected from the total population representing samples of: (1) the overall, general population; (2) Business students; (3) Agriculture students; (4) Technical students; (5) Health students; (6) Night Transfer students; (7) Night Terminal students; (8) Day Transfer students; and (9) Day Terminal students. Further specifications of samples may be found under *Sampling Procedure*.

Sampling Procedure

Machine records print-out sheets were furnished by Illinois Central College. These sheets contained the names of all students enrolled at the beginning of the second semester, 1968-69, within the sampling areas listed in *Samples* above.

An identical procedure was followed for the selection of samples from each print-out sheet. First, each name was assigned an identification number within a series appropriate to the total number of names on the sheet. For example, the general population print-out listed 3,347 names; accordingly, these names were assigned the identification numbers 0001 through 2247. Second, a row and column starting point in a table of random numbers was arbitrarily chosen. Third, identification numbers were drawn from the table of random numbers, beginning with the starting point and reading vertically down the table. When the bottom of the table was reached, numbers were chosen in a similar manner beginning at the top of the table with the column immediately to the right of the starting point. This procedure was continued until the number of identification numbers desired had been selected without duplication. The identification numbers chosen were then matched with the corresponding numbers on the print-out sheets and the students' names adjacent to the identification numbers represented the sample members or units.

Duplications were expected since students are simultaneously members of the overall, general population, of a given schedule type and curriculum type, e.g. Night Transfer, and perhaps also of one of the four academic areas chosen. Thirteen duplications resulted from drawing 400 identification numbers from the table

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[17] J. G. Peatman and R. Schafer, "A Table of Random Numbers from Selective Service Numbers," *Journal of Psychology*, 14:296-297 (1942), reprinted in Merle W. Tate, *Statistics in Education*, pp. 568-569.

of random numbers. The total number of students invited to participate in the study was, therefore, 387.

A letter of invitation was sent on April 9, 1969, to each student randomly selected for the nine sample groups. A postcard reminder was also sent each student on April 12, 1969. Examples of the letter of invitation and the reminder postcard are included as Appendix A and Appendix B, respectively.

Maslow's Security-Insecurity Inventory was administered to students April 16 through 19, 1969, in the College Room of the Illinois Central College Student Union. Students reported initially to the counseling offices where they were directed to the College Room. In the College Room, students identified themselves to the researcher and were given an instrument package consisting of directions, nine questions asking for descriptive information, and the S-I Inventory. The package was designed to be self-administering so that students could participate in the study whenever they had free time. Students were instructed where to begin in the package and to use as much time as they felt was needed in order to give accurate answers. As estimated in the invitation letter, 15 to 20 minutes was required, on the average, to answer all questions. A complete instrument package is contained in this study as Appendix C.

Provision for Test Interpretation

Confidentiality of student answers was strictly observed. Students were instructed not to affix their name on any portion of the instrument package. A small card attached to the package listed the name and Survey Identification Number assigned each subject of the study. Students were to remove these cards and keep them when leaving the testing room. If a student subsequently desired a test interpretation, he was to report to the Illinois Central College counseling offices and give his counselor the card listing his name and Survey Identification Number. The counselor then requested the research send the questionnaire with corresponding number so that the requested test interpretation could be conducted.

It is of interest that only three students requested test interpretations. One of the three, however, as a result of the interpretation interview, was referred to a nearby mental health clinic to receive psychological help.

The Security-Insecurity Inventory

Purpose

The purpose of the Security-Insecurity Inventory is to measure inner, conscious feelings of psychological security-insecurity as defined by Maslow.[18] By summing answers to questions related to 14 subsyndromes of the security-insecurity syndrome, this instrument provides a numerical index indicating the degree of internal balance within a person between the poles of psychological security and insecurity. The higher the score, the more insecure a person is; the lower, the more secure one feels.

Since psychological security is one of the determinants of mental health, if not synonymous with it, Maslow suggests the S-I Inventory be used as a screening device with large populations. Individuals with "neurotic" symptoms but with moderate scores on the S-I Inventory are likely suffering from situational problems rather than severe neurosis or personality disorders.[19] These are persons who may benefit from counseling within the junior college. Students, however, with extremely high scores on the S-I Inventory may have psychological problems too serious for counseling by junior college counseling staff. These insecure students might best be considered for referral to a mental health agency outside the college where more highly trained help is available, and where the program design may accommodate serious personality problems.

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[18] A. H. Maslow and others, Manual for the Security-Insecurity Inventory, n.p. (Hereafter Manual)

[19] A. H. Maslow and others, "A Clinically Derived Test for Measuring Psychological Security-Insecurity," The Journal of General Psychology, 33:37 (July, 1945). (Hereafter "Test")

The primary use of the test is intended by Maslow to be "with large groups, whether for various types of research, for survey purposes in any given population, or for comparison of populations."[20] The S-I Inventory is not designed or intended to be used as a tool of individual diagnosis, and Maslow warns against using it as a substitute for clinically studying the individual.[21]

Reliability

Because feelings of security change with time, reliability calculations utilizing internal consistency techniques are seen by Maslow as more appropriate than test-retest methods. Utilizing the split-halves, odd-even method, a reliability of .86 was obtained; splitting the form with approximately equal representation from each subsyndrome in the halves resulted in a .91 reliability coefficient. Pages one, two, and three, when correlated with the total score, produced reliability coefficients of .92, .91, and .92, respectively.[22] All these coefficients indicate that the S-I Inventory is an instrument of high internal consistency reliability.

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[20] P. 37.

[21] P. 38.

Validity

A validity coefficient of approximately .90 is claimed by Maslow.[23] A threefold argument is used to support this claim. First, clinical studies of known secure and insecure clients provided original and subsequent data for validity of test items. An item analysis technique was also utilized to ensure only those items that discriminated well were retained. Content validity was assured throughout test construction by adhering closely to the definitions of subsyndromes of security-insecurity. Secondly, the test was given to students who served as the criterion for concurrent validation through reporting how well they thought the test had estimated their feelings of security. This method of validation is the only evidence of predictive validity given by Maslow. Eighty-eight per cent reported the S-I Inventory to be fairly or extremely accurate in estimating levels of security.[24] Third, over a period of five years or longer, Maslow examined construct validity by comparing test scores with kind and seriousness of client problems. High agreement was found between test scores and types of psychological problems.[25]

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[22] Maslow and others, Manual, n.p.

[23] Maslow and others, "Test," p. 29.

Webster, reviewing the S-I Inventory in Buros' Fifth Mental Measurements Yearbook writes:

> It may be said immediately that it is doubtful that there are other personality tests the authors of which have exercised such great care to ensure item validity. The test can be recommended without reservations as a valid measure of security-insecurity, as this trait is described by the authors.[26]

Hanawalt, another reviewer in Buros' book, is critical of the lack of predictive validity studies, but concludes, "the validity is as good as can be expected."[27]

The S-I Inventory is likely particularly valid for use with junior college populations because the validation studies were conducted with college students generally between the ages of 17 and 23. Illinois Central College, however, like many other junior colleges, has an extremely heterogenous age distribution, and the use of the S-I Inventory for all students in the population may be questioned. Further study is indicated before the instrument can be endorsed without qualification for junior college use.

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[24] P. 29.

[25] Pp. 29-33.

[26] Harold Webster, (review of the S-I Inventory), in Oscar K. Buros, ed., The Fifth Mental Measurements Yearbook, pp. 107-108.

[27] Nelson G. Hanawalt, (review of the S-I Inventory), in Oscar K. Buros, ed., The Fifth Mental Measurements Yearbook, p. 107.

Design of Study

The problem of this study was translated into two major questions: (1) how are feelings of psychological security-insecurity distributed generally throughout the entire population of Illinois Central College students; and (2) are there any differences in feelings of psychological security-insecurity among various groups within the overall population? These two questions were restated in null hypothesis form and the sample data was statistically analyzed to determine the significance of any differences found.

The null hypotheses follow, plus a description of the statistical treatment used to test each hypothesis.

Null Hypothesis 1: There is no significant difference between the mean level of security-insecurity of the overall, general population of students at Illinois Central College and the mean level of security-insecurity found by Maslow (N = 2,020) as given in Table VI of the Manual for the Security-Insecurity Inventory.

Treatment 1: A two-tailed test using z as test statistic was conducted at the .01 level of significance to test the hypothesis of no difference in means.

Null Hypothesis 2: There is no significant difference between the form of the distribution of security-insecurity among Illinois Central College students and the form of the distribution found by Maslow (N = 2,020) as given in Table VI of the Manual for the Security-Insecurity Inventory.

Treatment 2: The form of the distribution of security-insecurity of Illinois Central College students was compared to the rectangular distribution of deciles in Table VI of Maslow's manual by using a frequency chi-square test at the .01 level of significance.

Null Hypothesis 3: There is no significant difference among mean levels of security-insecurity as found in: (1) Business students; (2) Health students; (3) Technical students; and (4) Agriculture students, of Illinois Central College.

Treatment 3: A preliminary test using Hartley's F-max statistic was conducted to test the assumption of homogeneity of variance at the .05 level of significance. The null hypothesis was then tested using a one-way analysis of variance technique at the .01 level of significance.

Null Hypothesis 4: There is no significant difference between mean levels of psychological security-insecurity in Day and Night students at Illinois Central College.

Null Hypothesis 5: There is no significant difference between mean levels of psychological security-insecurity in Transfer and Terminal students at Illinois Central College.

Null Hypothesis 6: The difference in psychological security-insecurity between Day and Night Transfer students does not differ significantly from the difference in psychological security-insecurity between Day and Night Terminal students.

Treatment of Null Hypotheses 4, 5, and 6: A two-way analysis of variance technique at the .01 level of significance was utilized to test hypotheses 4, 5, and 6 within the same test.

In addition to testing the above null hypotheses, descriptive data including sex, age, standing in high school class, marital status, and religious preference, of all samples was tabulated as an aid to understanding significant differences that were found. An item analysis utilizing a chi-square test of independence for each item of the S-I Inventory was also performed to determine which items of the instrument discriminated between groups differing significantly in feelings of psychological security-insecurity.

CHAPTER IV

RESULTS

Response of Samples to Approach

The approach used for data collection in this study was a letter of invitation and reminder postcard from the Director of Counseling at Illinois Central College requesting students to use free minutes on campus for the purpose of completing survey forms. Data to be collected was assembled into a self-administering instrument package. The researcher identified each student by name so as to match data collected with the appropriate sample. Students were then instructed concerning where to begin in the instrument package, and each student was allowed to complete the survey forms within the testing room at his own rate of speed.

It is the hope of the researcher that percentages reported from this approach may serve as guidelines for future research designs with junior college populations. Designs utilizing random samples are difficult to achieve operationally because of varying time schedules of individual students. Most students come on campus for classes, then leave, and many do not stay extra periods of time or return to participate in extra-curriculum activities. Research may be conducted within classes, e.g. psychology classes, but such a procedure may bias results. The approach used in this study was designed to avoid sample bias and to yield accurate pictures of populations sampled.

Three hundred eighty-seven different students were sent letters and postcards of invitation. Of this number, 191 students came to participate in the survey. One of these students, after reading the questions within the S-I Inventory, refused to answer. The total number who completed all forms was, therefore, 190 or 49 per cent of the 387 invited.

In addition to the 190 students who responded to invitations, 13 others volunteered to participate in the survey. The instrument package was administered to these students. They have not, however, been included in response percentages that follow in Table 6.

Per cent return figures in Table 6 are understated. It is impossible to pinpoint by total or by sample, how much higher these return figures should be. Data was collected after the last date in the second semester for students to withdraw from classes because of failing grades. Illinois Central College officials estimated that as many as 25 per cent of those enrolled at the beginning of the semester had dropped out by the date of data collection. Yet, all samples were selected from lists of

TABLE 6

RESPONSE OF SAMPLES TO APPROACH USED

Population Sampled	Number Invited	Number of Responses	Per Cent Return
General Population	230	112	48.7
Business Students	30	12	40.0
Health Students	30	14	46.7
Technical Students	30	14	46.7
Agriculture Students	30	17	56.7
Night Transfer Students	50	27	54.0
Night Terminal Students	73[a]	24	32.9
Day Transfer Students	94[a]	42	44.7
Day Terminal Students	47[a]	27	57.4

[a] Sample N taken from total representation within General Population Sample return (N = 112); number invited figure is a projection based on the percentage of this group within the total population of 3,347 ICC students.

students enrolled at the beginning of the semester. If officials' estimates are accurate, the return may have been as high as 66 per cent.

Because of the likelihood return per cent figures are inaccurate, it is difficult to interpret data within Table 6. Returns suggest the highest per cent of response from invitations may be expected from Day Terminal, Agriculture, and Night Transfer students. Such a suggestion, however, must be considered highly tentative as a basis for planning future research designs.

Security-Insecurity Within the General Population

One of the major questions posed in this study was how are feelings of psychological security-insecurity distributed generally throughout the entire population of Illinois Central College students? The first two null hypotheses were tested by treatments one and two, respectively, to answer this question.

Null Hypothesis 1: There is no significant difference between the mean level of security-insecurity of the overall, general population of students at Illinois Central College and the mean level of security-insecurity found by Maslow (N = 2,020) as given in Table VI of the *Manual for the Security-Insecurity Inventory*.

Treatment 1: A two-tailed test using z as test statistic was conducted at the .01 level of significance to test the hypothesis of no difference in means.

A mean of 18.6 was computed for the General Population Sample of 112 students. This sample mean compares closely with Maslow's stated mean of 19.5 for his population of 2,020.[1] The z test found no significant difference between these means, and the null hypothesis was retained.

Null Hypothesis 2: There is no significant difference between the form of the distribution of security-insecurity among Illinois Central College students and the form of the distribution found by Maslow (N = 2,020) as given in Table VI of the Manual for the Security-Insecurity Inventory.

Treatment 2: The form of the distribution of security-insecurity of Illinois Central College students was compared to the rectangular distribution of deciles in Table VI of Maslow's manual by using a frequency chi-square test at the .01 level of significance.

It was desired to use 200 or more scores to test this null hypothesis. Accordingly, a composite sample termed "Form of Distribution Composite Sample" was formed as shown in Table 7 below. This procedure resulted in 203 separate scores of security-insecurity.

Since the assumption of random sampling from the overall population was not followed in compiling the Form

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[1] A. H. Maslow and others, Manual for the Security-Insecurity Inventory, n.p.

TABLE 7

MAKEUP OF FORM OF DISTRIBUTION
COMPOSITE SAMPLE

Population Sampled	Selection Method	Sample Size
General Population of Students	Random	112
Business Students	Random	12
Health Students	Random	14
Technical Students	Random	14
Agriculture Students	Random	17
Night Transfer Students	Random	27
Undetermined	Volunteers	13
Subtotal		209
Duplicate scores		-6[a]
Total		203

[a] Four Night Transfer, one Health, and one Business Student were also selected for the General Population Student Sample.

of Distribution Composite Sample, generalizations from the chi-square test cannot be made concerning the population of all students at ICC unless the composite sample can be shown to be truly representative of the total population. Table 8 shows that the composite sample is closely similar to all students enrolled Second Semester, 1968-69, in percentages of day, night, transfer and terminal enrollments.

TABLE 8

COMPARISON OF FORM OF DISTRIBUTION COMPOSITE SAMPLE AND SECOND SEMESTER 1968-69 ENROLLMENT

Description	Per Cent
ICC Students Enrolled Day	61.7
Sample Students Enrolled Day	63.0
ICC Students Enrolled Night	38.3
Sample Students Enrolled Night	37.0
ICC Students in Transfer Programs	47.8
Sample Students in Transfer Programs	53.2
ICC Students in Terminal Programs	52.2
Sample Students in Terminal Programs	46.8

Other data on the characteristics of the Illinois Central College student population enrolled Second Semester, 1968-69, are not available. Further comparisons were made, therefore, between the General Population Sample (N = 112) data, and the Form of Distribution Composite Sample. Two assumptions were made. First, it was assumed that the random sample of 112 students from the total enrollment of 3,347 students is a representative sample of the overall, general population. Second, it was assumed that a comparison between the General Population

Sample and the Form of Distribution Composite Sample is meaningful for purposes of determining whether or not generalizations can be drawn from the frequency chi-square test about the Second Semester, 1968-69, population of ICC students.

Table 9 compares descriptive data of the General Population Sample with that of the Form of Distribution Composite Sample. Seven per cent more students in the composite sample are male than in the General Population Sample; the composite sample has seven per cent fewer females. There is also a small difference in marital status, six per cent more of the General Population Sample being married than in the composite group, while the direction is reversed but with an equal per cent difference for the single category. In other categories there is very close agreement.

The most important comparison for purposes of the frequency chi-square (x_f^2) test is between the per cent of scores within each of Maslow's deciles for the General Population and Form of Distribution Composite Samples. Changes in per cent values by decile between the two samples are reflected through score frequencies in a changed value of the test statistic, x_f^2. Thus, changes in per cents in this comparison might influence the outcome

TABLE 9

COMPARISON OF DESCRIPTIVE DATA FORM OF DISTRIBUTION COMPOSITE SAMPLE AND GENERAL POPULATION SAMPLE

Descriptive Category	Per Cent General Population Sample	Per Cent Form of Distribution Composite Sample
Sex		
Male	50	57
Female	50	43
High School Rank		
Top third	36	36
Middle third	50	51
Lower third	14	13
Marital Status		
Single	69	63
Married	29	35
Other	2	2
Religious Preference		
Protestant	55	57
Catholic	28	26
Jewish	0	0
Other	17	17

of the test itself. Note within Table 10 that the change in five of the decile categories would tend to increase the value of x_f^2, while five of the categories would decrease the value. The average change in per cents by decile category decreasing x_f^2 is 1.6 per cent. The average change increasing x_f^2 is .8 per cent. Use of the composite sample instead of the General Population Sample for purposes of computing x_f^2 will, therefore, tend to decrease slightly the value of the test statistic, and such use should be considered as questionable for values very close to the critical region.

A chi-square value of 12.62 was computed as the value of the test statistic, and the null hypothesis of no difference in distribution forms was retained. This value is not close to the critical region, $x_f^2 \geqslant 21.67$, and the use of the Form of Distribution Composite Sample may be accepted, therefore, on the grounds that:
(1) such use does not change the outcome of the test; and (2) the composite sample is representative of the overall population of Illinois Central College students.

TABLE 10

COMPARISON OF GENERAL POPULATION AND FORM OF DISTRIBUTION COMPOSITE SAMPLES BY PER CENT SECURITY-INSECURITY

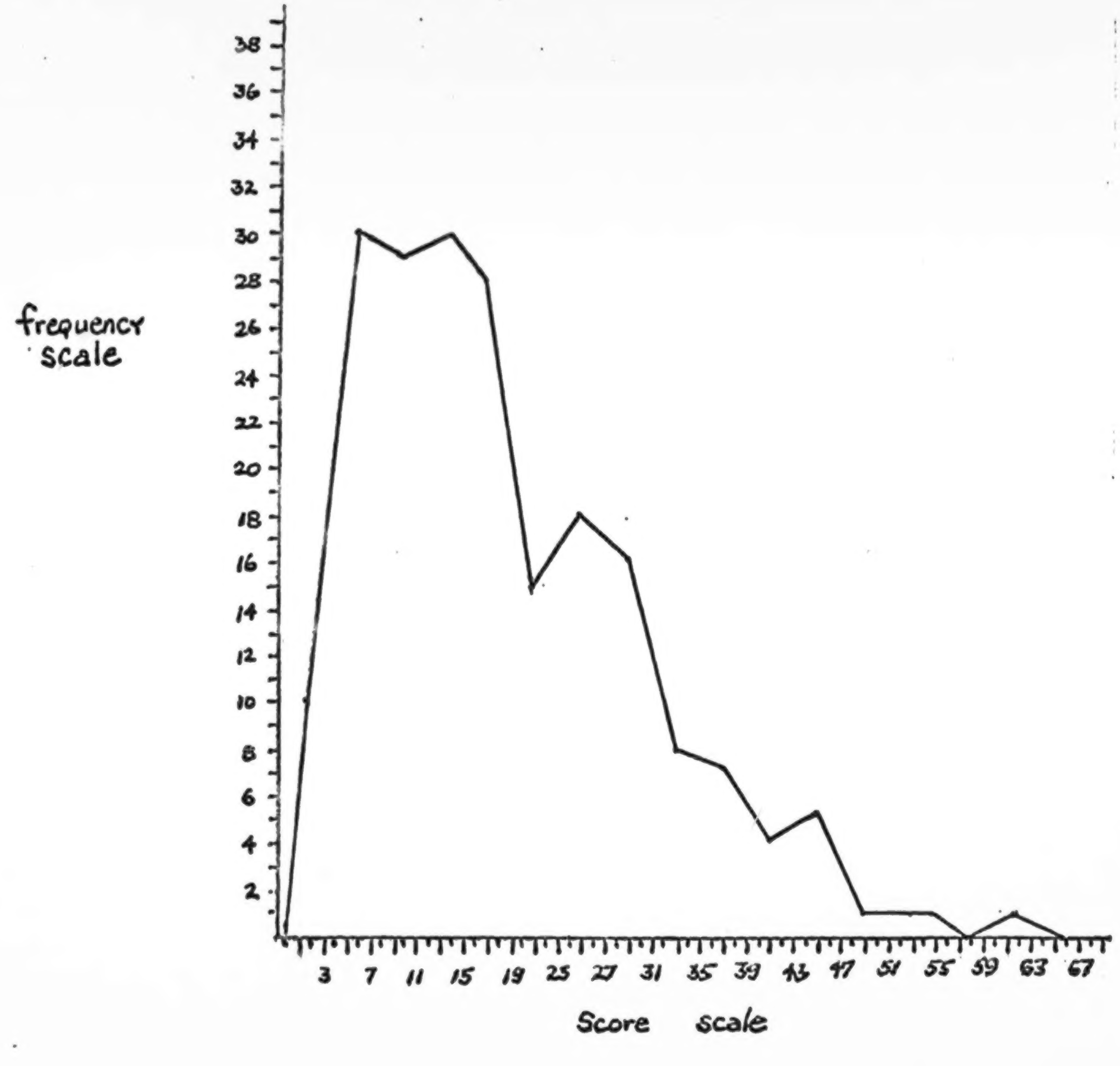
Maslow's Decile Classification[a]	Per Cent General Population Sample	Per Cent Form of Distribution Composite Sample
Very Insecure	6.3	6.9
Insecure	7.2	6.9
Tendency to be insecure	14.3	12.3
Average	11.6	9.3
Average	8.0	7.0
Average	12.5	14.3
Average	9.8	9.3
Tendency to be secure	8.0	12.3
Secure	8.0	9.9
Very secure	14.3	11.8

[a] A. H. Maslow and others, Manual for the Security-Insecurity Inventory, n.p.

The form of the distribution of the composite sample is shown in Figure 1 below. This distribution, as Maslow's, is positively skewed with the greatest score frequencies found in the secure portion of the score range. The frequency distribution of scores for Figure 1 is contained in this study as Appendix D.

FIGURE 1

FORM OF DISTRIBUTION COMPOSITE SAMPLE
FREQUENCY POLYGON



Security-Insecurity Differences Among Curriculum Groups

The second major question of this study asked are there any differences in feelings of psychological security-insecurity between various groups within the overall population? The third null hypothesis as tested by the third treatment was included in the study to help answer this question.

Null Hypothesis 3: There is no significant difference among mean levels of security-insecurity as found in: (1) Business students; (2) Health students; (3) Technical students; and (4) Agriculture students, of Illinois Central College.

Treatment 3: A preliminary test using Hartley's F-max statistic was conducted to test the assumption of homogeneity of variance at the .05 level of significance. The null hypothesis was then tested using a one-way analysis of variance technique at the .01 level of significance.

The preliminary test revealed that the assumption of homogeneity of variance applies to the populations sampled. The one-way analysis of variance test did not result in a significant value of the test statistic, F, and the null hypothesis was retained. Table 11 below summarizes the one-way analysis of variance between curriculum groups.

TABLE 11

ANOVA SUMMARY OF CURRICULUM GROUPS

Sources	ss	df	ms	F
Experimental Groups	143.3	3	47.7667	.411
Within Groups	6,165.6	53	116.3321	
Total	6,308.9	56		

Security-Insecurity Differences between Schedule and Curriculum Types

Schedule types Day and Night, and curriculum types Transfer and Terminal, were examined to help answer this study's second major question, are there any differences in feelings of psychological security-insecurity among various groups within the overall population? Null Hypotheses four, five, and six and corresponding treatment provided answers for this examination.

Null Hypothesis 4: There is no significant difference between mean levels of psychological security-insecurity in Day and Night students at Illinois Central College.

Null Hypothesis 5: There is no significant difference between mean levels of psychological security-insecurity in Transfer and Terminal students at Illinois Central College.

Null Hypothesis 6: The difference in psychological security-insecurity between Day and Night Transfer students does not differ significantly from the difference in psychological security-insecurity between Day and Night Terminal students.

Treatment of Null Hypotheses 4, 5, and 6: A two-way analysis of variance technique at the .01 level of significance was utilized to test hypotheses 4, 5, and 6 within the same test.

Two-Way Analysis of Variance

Unequal numbers were obtained for the matrix cells, Day Transfer, Day Terminal, Night Transfer, and Night Terminal, through the response to the sampling approach. To equalize numbers of scores within cells, it was necessary to select out 18 Day Transfer, 3 Day Terminal, and 3 Night Transfer scores. This selection was accomplished by a random technique. The number of scores within each cell after the random draw was 24. The matrix of scores is presented in this study as Appendix E.

Table 12 summarizes the results of the two-way analysis of variance test. No difference in mean levels of psychological security-insecurity between Transfer and Terminal students was found, nor was any interaction found between schedule and curriculum types. Null Hypotheses 5 and 6 were, therefore, retained. Null Hypothesis 4, however, was rejected. The difference in mean levels of psychological security-insecurity between Day and Night students was significant at the .01 level. Day students, on the average, achieved a more insecure score than did Night students.

TABLE 12

SCHEDULE AND CURRICULUM TYPES
TWO-WAY ANOVA SUMMARY

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Rows (Curriculum Type)	19.26	1	19.26	.17
Columns (Schedule Type)	1,953.01	1	1,953.01	17.15[a]
Interaction	82.51	1	82.51	.73
Within Cells	10,475.71	92	113.87	
Total	12,530.49	95		

[a] $p < .01$

The rejection of Null Hypothesis 4 was verified by a further test. No difference between mean levels of psychological security-insecurity in Day and Night students was hypothesized. Scores randomly taken from the cells of the two-way analysis of variance matrix were again put into their appropriate cells. Separating matrix columns then provided random samples of Day and Night students. The hypothesis was then tested using a two-tailed test with z as test statistic. The outcome of this test indicated rejection of the null hypothesis, and was significant at the .01 level. Day students were confirmed to be, on the average, less psychologically secure than Night students.

Table 13 clarifies the difference in feelings of psychological security-insecurity between Day and Night students. All classification categories are as listed in the test manual except for the Average category. Four deciles are listed separately by Maslow, each corresponding to the term, "Average." These four are summed within Table 13 as an aid in pointing out significant differences. Note that over 30 per cent of Day students scored in the top three categories as compared to nearly 20 per cent of Night students. Nearly 15 per cent more Day than Night students scored in the Average category, while over 25 per cent more Night students than Day students scored in the bottom three categories.

TABLE 13

COMPARISON OF DAY AND NIGHT STUDENTS
BY PER CENT SECURITY-INSECURITY

Maslow's Classification[a]	Day Students (N = 69)	Night Students (N = 51)
Very Insecure	8.7	2.0
Insecure	7.2	9.8
Tendency to be Insecure	14.5	7.8
Average	47.8	33.3
Tendency to be Secure	7.2	9.8
Secure	5.8	13.7
Very Secure	8.7	23.5

[a] A. H. Maslow and others, Manual for the Security-Insecurity Inventory, n.p.

Day and Night Student Answers

Answers given by Day and Night students were tabulated for each of the 75 items of the S-I Inventory. A test of independence utilizing the frequency chi-square statistic was then conducted for each item. The null hypothesis for each of the 75 tests was that the type answer given, "Yes," "no," or "?," is independent of the schedule type of student answering. The test of independence can be thought of as testing association or correlation between type of answer given and schedule type of student answering. If the null hypothesis is retained, then given the relative frequencies of a distribution of answers to an item, one could not predict which schedule type corresponds to the relative frequency distribution. If the outcome of the test indicates rejection of the null hypothesis, such prediction is possible.

Table 14 lists questions of the S-I Inventory for which the null hypothesis of independence was rejected. Values of the test statistic, x^2_f, and degrees of freedom appropriate to each test are also given. The df values vary because Cochran's suggestions for controlling small F values were followed.[2] That is, it was necessary to reorganize data matrices for three of the items, eliminating the frequencies for the "?" answer because F values were too small.

Interpretations of significant items listed in Table 14 below must be made individually by item. These interpretations are listed in Table 15 which follows.

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[2] W. G. Cochran, "Some Methods for Strengthening the Common x^2 Tests," Biometrics, 10:420 (December, 1954).

TABLE 14

DAY AND NIGHT STUDENT ANSWERS: CHI-SQUARE AND DF VALUES OF SIGNIFICANT ITEMS

Question[a]	df	x_r^2 Value
Do you get discouraged easily?	1	6.0944[b]
Are you frequently in low spirits?	1	5.3765[b]
Do you feel that you are useful in the world?	2	15.9211[c]
Do you spend much time worrying about the future?	2	9.3804[c]
Do you think of yourself often?	2	10.4274[c]
Do you feel sorrow and pity for yourself when things go wrong?	2	8.5874[b]
Are you ever bothered by a feeling that things are not real?	1	10.0226[c]

[a] A. H. Maslow and others, The S-I Inventory, n.p.

[b] $p < .05$

[c] $p < .01$

TABLE 15

INTERPRETATION OF SIGNIFICANT ITEMS OF DAY AND NIGHT STUDENTS

Question[a]	Interpretation
Do you get discouraged easily?	Day students tend to say "Yes" as often as "No," while Night students tend to answer "No."
Are you frequently in low spirits?	Night students tend to answer "No" without exception. Day students also tend to say "No" most often but many answer "Yes," as well.
Do you feel that you are useful in the world?	"Yes" is the overwhelming choice of Night students. Most Day students also answer "Yes," but many say "No," and "?," as well.
Do you spend much time worrying about the future?	Day students tend to say "Yes," while Night students say "No." There are many exceptions, however, in both groups.
Do you think of yourself often?	Day students tend to answer "Yes," and "?," more often than Night students. "No" is the answer Night students tend to give.
Do you feel sorrow and pity for yourself when things go wrong?	Many more Day students than Night students tend to answer "?." Other differences are slight with most of both groups answering "No," although many say "Yes."

TABLE 15 (continued)

Are you ever bothered by a feeling that things are not real?	Over a third of Day students say "Yes," while almost none of the Night students answer this way.

[a] A. H. Maslow and others, The S-I Inventory, n.p.

Descriptive Data by Sample

Descriptive data including sex, age, high school rank by thirds, marital status, and religious preference, was collected from all students participating in this study. This data was tabulated to help in understanding results of statistical analyses. Table 16 presents the results of the descriptive data collection and compilation.

Discussion

The statistical analyses point to several important findings. Outcomes of testing the first and second null hypotheses indicate that the general population of Illinois Central College students is very similar in feelings of psychological security-insecurity to the population of 2,020 used by Maslow as a norm in the Manual for the S-I Inventory. Mean levels and distribution forms do not

TABLE 16

DESCRIPTIVE DATA BY SAMPLE

Sample	N	Per Cent Sex		Ave. Age	Per Cent H.S. Rank by Thirds			Per Cent Marital Status			Per Cent by Religious Preference			
		Male	Female		Top	Middle	Lower	Single	Married	Other	Prot.	Cath.	Jew	Other
General Pop.	112	50	50	24.5	36	50	14	69	29	2	55	28	0	17
Business	12	83	17	22.8	8	84	8	58	42	0	57	26	0	17
Health	14	13	86	22.1	64	36	0	64	36	0	42	42	0	16
Technical	14	86	13	22.8	36	57	7	71	29	0	64	29	0	7
Agriculture	17	100	0	18.8	35	47	18	94	6	0	50	29	0	21
Day Trans.	24	67	33	21.5	21	54	25	75	25	0	76	12	0	12
Day Term.	24	29	71	21.3	33	54	13	71	29	0	46	33	0	21
Night Trans.	24	54	46	31.2	38	58	4	21	75	4	54	42	0	4
Night Term.	24	54	46	30.3	41	46	13	38	54	8	50	29	0	21

differ significantly for these two groups. Maslow seems to have presented his 2,020 in the manual for the purposes of: (1) demonstrating that the distribution of security-insecurity scores is positively skewed; and (2) providing the test user with interpretive labels for score ranges (deciles) to indicate the degree of security-insecurity that may be associated with any single score. Two conclusions are subsequently suggested by the similarity found between ICC students and Maslow's norm population: (1) many more ICC students possess at least an average amount of psychological security than feel relatively or very insecure; and (2) labels and corresponding decile ranges of the test manual may be used to interpret scores of ICC students.

Following from the second conclusion is the inference that Maslow's clinical experience with types of treatment successful with clients differing in degrees of psychological security-insecurity may be applied to the population of Illinois Central College students. It may be seen from Table 10 that nearly 14 per cent of the General Population and Form of Distribution Composite Samples scored in either the Insecure or Very Insecure categories. These are the people Maslow speaks of when he writes:

> My experience has been that those scoring in the lowest decile are almost certain to be suffering from a true neurosis or else from a

> severe situational neurosis, and that very few people who are so diagnosed will score above the second lowest decile.[3]

Approximately 14 per cent, therefore, of all students at Illinois Central College may be suffering from a true neurosis or a severe situational neurosis. These students may have personality disorders too serious for the junior college counseling staff to treat. Insecure and Very Insecure students should likely be considered for referral to mental health agencies outside the junior college where both the design of the program and the competency of the staff contribute to restoring these students to an improved state of mental health.

Table 13 shows that between the mutually exclusive categories of Day and Night students, approximately 16 and 12 per cent respectively, scored either Insecure or Very Insecure. Thus, the incidence of serious neurosis may be higher among Day students than in the overall population, while the reverse may be true for Night students.

If students who either tend to be insecure or who are considered average are those who can be regarded as having situational, normal kinds of problems, then the incidence of students who might benefit from counseling may be approximately 56 per cent among the overall population, 62 per cent among Day students, and 41 per cent in the Night student population. Situational, normal problems are likely temporary in nature, however, and these per cent figures should be considered as rough approximations only for purposes, e.g., of planning counselor work load.

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[3] A. H. Maslow and others, "A Clinically Derived Test for Measuring Psychological Security-Insecurity," *The Journal of General Psychology*, 33:33 (July, 1945).

Data is presented by Maslow explaining the kinds of problems students have who score as Tendency to be Secure, or as Average, in security-insecurity feelings. He cites percentile means of 37.4 and 59.4 for 27 clients characterized as "miscellaneous problems connected with sex, marriage, children, [and] family," and 19 clients seeking "advice about graduate work, work in psychology, [and] school work," respectively.[4] Maslow also lists problems that would fall from the third through the seventh deciles of the S-I Inventory. These range from "conflict between strong sexual impulses and strong moral inhibitions," to problems concerning "vocational advice."[5] That these problems may be situational problems of normal people is suggested by Maslow's finding that five students characterized as "well adjusted, creative or both" scored in the average range of the S-I Inventory.[6]

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[4] P. 32.

[5] P. 31.

As shown by Tables 10 and 13, approximately 30 per cent of the overall population, 22 per cent of Day students, and 47 per cent of Night students, scored in the deciles characterized as Tendency to be Secure, Secure, or Very Secure. These students likely can be considered as having fully satisfied their needs for psychological security.

The outcome of testing the third null hypothesis was that there are no significant differences in mean levels of security-insecurity among Business students, Health students, Technical students, and Agriculture students, at Illinois Central College. Table 16 reveals differences in descriptive data of these four curriculum groups. The Agriculture students are all males, while the Health student sample was heavily female; Agriculture students on the average were four years younger than either the Business or Technical students; many more Health students than Business students report they finished in the top third of their high school classes; only 6 per cent of Agriculture students were married, while 42 per cent of Business students were; and equal numbers of Health students were Protestant and Catholic, while over twice as many Business and Technical students were Protestant as were Catholic. Evidently, the amounts of differences noted for those four curriculum groups did not influence the mean levels of psychological security-insecurity within the groups.

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[6] P. 32.

When the broader curriculum types of Transfer and Terminal were compared under the fifth null hypothesis, no significant difference was found in mean levels of security feelings. This finding agrees with the outcome of testing four curriculum groups, even though the four groups included both terminal and transfer students. When interaction between schedule and curriculum types was tested under the sixth null hypothesis, again no significant difference was found, although a highly significant difference was found between mean levels of security in schedule types within the same matrix. The outcomes of testing Hypotheses 3, 5, and 6 all support the conclusion that differences in psychological security-insecurity do not exist at Illinois Central College between varying curriculum classifications.

As shown in Table 12, the two-way analysis of variance used to test the fourth null hypothesis revealed a highly significant difference in mean levels of psychological security-insecurity between Day and Night students. The average Day student was found to respond in a manner indicating less psychological security than the average Night student.

Descriptive data in Table 16 reveal differences that may contribute to the relatively greater security of Night students. These students, for example, were over nine years older, on the average, than Day students. A higher per cent of Night students came from the top third of their high school class than did Day students, while more Day students than Night came from the lower third of their graduating class. More of the Night students were married. Only 29 per cent of Night students reported they were single. Day students who were single, however, comprised 73 per cent of the Day student sample.

Another factor that may be related to the relatively greater security of Night students is provided by Roberson's analysis of ICC students enrolled Spring Semester, 1968. Roberson found that the majority of Night students were enrolled for six hours of classes or less, while the median load for Day students was 14 hours.[7] It is reasonable to assume that a comparable difference between course load exists for the population researched in this study.

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[7] Glenn Roberson, "A Descriptive Analysis of Illinois Central's Student Body Spring Semester 1968," p. 20. Unpublished manuscript.

The results of the item analyses as interpreted in Table 15 further help in understanding the security-insecurity difference between schedule types. Night students seem relatively more mature, and more sure of themselves, in their answers than do Day students. Night students seem to know who they are, while Day students appear to be struggling to forge self-identity. Day students think of themselves often, and many are bothered by a feeling that their worlds are not real. This group reports worrying much about the future; many say they are often discouraged and in low spirits. Night students, by contrast, seem more stable, perhaps more established in their worlds, as nearly all in the sample said they felt useful in the world. Many Day students could not answer the same.

Conclusive statements telling which of the above factors are related to the increased feelings of psychological security evident in Night students cannot be made. This study was not designed to discover causes of psychological security-insecurity among junior college students. The researcher offers, however, the following explanation of the difference between Day and Night students as an hypothesis for further research.

Night students are more psychologically secure as a group than Day students, probably because Day students have not solved basic problems in social and vocational areas as have Night students. Most Night students, for example, have marriages of their own and have established independence from their parents. The average Day student is still in the process of choosing a mate and establishing a home separate from his parents'. Also, most Night students have likely settled themselves into a vocation, or at least a vocational field, and have adjusted aspirations and goals in life more realistically to fit abilities, than have Day students.

Success or failure in social and academic areas of their junior college experience will likely produce a greater change in the self-concept of the average Day student than of the typical Night student. For the Night student, the junior college is probably just one of many concerns within the context of a rather stable life. For Day students, life is changing at a faster rate, and success in all areas of endeavor within the junior college is a major concern. Day students likely have much more at stake, academically and socially, that may change self-identity, than do Night students. The psychological security of Day students is, therefore, likely threatened more often and by more kinds of variables than is the case with Night students.

CHAPTER V

SUMMARY AND CONCLUSIONS

It was the purpose of this study to discover how feelings of psychological security-insecurity are distributed throughout the entire population of students at Illinois Central College, and if significant differences exist among various subgroups within the overall population as regards security-insecurity feelings.

The population of students enrolled Second Semester, 1968-69, at Illinois Central College was sampled to obtain the necessary data. A total of 387 different students as represented in nine samples was randomly selected from the total enrollment of 3,347. The nine samples were chosen to represent: (1) the entire population; (2) Business students; (3) Health students; (4) Technical students; (5) Agriculture students; (6) Day Transfer students; (7) Day Terminal students; (8) Night Transfer students; and (9) Night Terminal students. The number of students within each sampling area who responded to the approach used and participated in this study is listed in Table 6 of Chapter IV.

Maslow's Security-Insecurity Inventory was administered to measure security-insecurity feelings of students. This instrument is a self-report questionnaire consisting of 75 items to be answered "Yes," "No," or "?" by the subject. The summed total of insecure answers becomes the single score of the inventory. This score is an index indicating position on a continuum ranging from Very Secure to Very Insecure. A total of 14 definitions of security-insecurity comprise the syndrome reflected by the inventory's single score.

Data obtained were subjected to statistical analysis utilizing five methods. The test statistic, z, was used to test the hypothesis of no difference in mean levels between the overall population of ICC students and Maslow's norm mean based on 2,020 subjects. Frequency chi-square was utilized in testing to see if the form of the distribution of security-insecurity for the entire population of Illinois Central students differed from the positively skewed form of Maslow's population of 2,020. A one-way analysis of variance technique was applied to data secured from the four curriculum groups of Business, Health, Technical, and Agriculture students. Data representing the schedule types Day and Night, and curriculum types Transfer and Terminal, were tested by a two-way analysis of variance technique. A chi-square test of independence was then conducted for each of the 75 items of the inventory to determine which items had contributed to the significant difference found.

Chapter III more completely describes the population of students at Illinois Central College from which samples were drawn. Results of statistical analyses are contained in this study in Chapter IV. The instrument package used in data collection is included as Appendix C. The letter of invitation and reminder postcard are found in Appendices A and B, respectively.

A summary of results, conclusions drawn from these findings, implications for junior college personnel workers and instructors, and implications of this study for future research comprise the remainder of this chapter.

Summary of Findings

This summary of findings presents answers to each of two parts of the problem question first stated in Chapter I of this study.

1. How are feelings of psychological security-insecurity distributed generally throughout the entire population of Illinois Central College students? No significant difference between mean levels of security-insecurity of ICC students and Maslow's norm population of 2,020 was revealed by the z test. A frequency chi-square test comparing observed score frequencies of a representative sample of the overall population

of ICC students with the decile relative frequencies of Maslow's norm population also resulted in a finding of no significant difference. The distribution of feelings of psychological security-insecurity among Illinois Central College students is, therefore, distributed similarly to Maslow's norm population; that is, positively skewed with the largest score frequencies occurring in the secure range, and with a mean score not differing significantly from 19.5.

2. Are there any differences in feelings of psychological security-insecurity among various groups within the overall population? A one-way analysis of variance revealed no significant differences in mean levels of feelings of psychological security-insecurity among the curriculum groups of Business, Health, Technical, and Agriculture students. A two-way analysis of variance test resulted in no interaction between Day and Night schedule types and Transfer and Terminal curriculum types. This analysis of variance also revealed no significant difference in mean levels of security feelings between Transfer and Terminal

students. A difference significant at the .01 level was found, however, between mean levels of psychological security-insecurity of Day and Night students. Day students were, on the average, significantly more insecure than were Night students. Each of the 75 items of the S-I Inventory as answered by random samples of Day and Night students were then examined for significant differences in answers chosen. The technique used was a frequency chi-square test of independence. Corrections were made for small F values as suggested by Cochran.[1] Three items were found to differ significantly at the .05 level, and four at the .01 level. Night student answers seemed to reflect increased maturity, more confidence, and a sense of worth and stability. Day student answers seemed to show less confidence, less stability, and a greater concern with identity of self in relation to present and future worlds. A more detailed description of item analyses may be found in Tables 14 and 15, and in the Discussion section of Chapter IV.

---

[1] W. G. Cochran, "Some Methods for Strengthening the Common x^2 Tests," Biometrics, 10:420 (December, 1954).

Conclusions

Conclusions of this study as based on results of statistical analyses of data are these:

1. Illinois Central College students as a population do not differ significantly in mean level of security feelings or form of distribution of security-insecurity scores from Maslow's norm population of 2,020.
2. Significant differences in mean levels of psychological security-insecurity do not exist between Transfer and Terminal, or among Business, Health, Technical, and Agriculture, students at Illinois Central College.
3. The difference in psychological security-insecurity between Day and Night transfer students does not differ significantly from the difference in psychological security-insecurity between Day and Night Terminal students.
4. The average Day student at Illinois Central College tends to report feelings indicating higher degrees of psychological insecurity than does the average Night student.
5. The greatest differences between Day and Night students occur in the middle and lower score

ranges; Day students are more likely to achieve an Average, or a Tendency to be Insecure score, and Night students score more heavily in the Secure and Very Secure categories.

6. Items 14, 23, 27, 29, 39, 41, and 73 of the S-I Inventory tend to be answered differently by Day and Night students.

Implications for Student Personnel Workers

Student personnel workers may facilitate security need satisfaction of students by helping to create within the environmental press of the junior college preconditions necessary for such need satisfaction. Maslow gives examples of these preconditions as follows:

> Such conditions as freedom to speak, freedom to do what one wishes so long as no harm is done to others, freedom to defend one's self, justice, fairness, honesty, orderliness in the group are examples of such preconditions for basic need satisfactions. Thwarting in these freedoms will be reacted to with a threat or emergency response.[2]

The student personnel worker for whom this study has the most important implications is the junior college counselor. Because he can offer the student a safe, confidential relationship with an understanding adult, one knowledgeable in counseling techniques and practice, the counselor is in a unique position to facilitate the satisfaction of security needs. The counselor is ideally not a disciplinarian of the college. Nor does he evaluate students through assigning grades as must junior college instructors. Students may come to the counselor and find a relationship free from threat or evaluation. Exploration of academic, vocational, and personal problems may result in better decisions by students because their security needs can be satisfied within the relationship offered by the counselor.

---

[2] A. H. Maslow, "A Theory of Human Motivation," Psychological Review, 50:383 (July, 1943). (Hereafter "Theory")

Counselors at Illinois Central College may find approximately 16 per cent of Day students and 12 per cent of Night students to be so insecure as to need referral to a mental health agency outside the junior college. It is the responsibility of the counseling staff at ICC to identify those students, interview them to assess the need for referral, and either refer to an appropriate agency or counsel within the junior college. If the college accepts the responsibility for the personal growth and success of all its students, then this effort to satisfy security needs of those students who are most insecure must be made.

That Insecure and Very Insecure students accepted the confidentiality offered them by the researcher, and that they had the courage to overcome their insecurity and answer questions in ways openly reflecting insecure feelings, suggests three points. First, these students may actually want someone to know about their feelings of insecurity; second, they may have appreciated someone being interested in their feelings and have responded to that interest; and last, these students would likely respond to offered confidentiality in future counseling relationships. The action of answering questions for many of those scoring in the two most insecure categories may be interpreted as a signal that psychological help would be welcomed.

Normal students scoring as Average or Tendency to be Insecure may feel relatively insecure as an accompaniment of situational, and somewhat temporary, problems. A relationship between such problems and feelings of insecurity is suggested by Maslow's data listing reasons clients came for therapy and their scores by percentile ranks achieved on the S-I Inventory.[3] The implication for this study is that roughly half of all ICC students (62 per cent of Day and 41 per cent of Night students) may benefit from counseling designed to simultaneously satisfy security needs and resolve situational, normal problems.

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[3] A. H. Maslow and others, "A Clinically Derived Test for Measuring Psychological Security-Insecurity," Journal of General Psychology, 33:30-32 (July, 1945).

Need for counseling at Illinois Central College as indicated by degree of felt insecurity seems as needed in one curriculum type or area of pursuit as it is in another. For example, Business students need counseling for satisfaction of security needs as much as do Technical students. Also, both Transfer and Terminal curriculum types may be thought of as essentially the same in need for counseling designed to change or modify feelings of insecurity.

That Illinois Central College students did not differ in either mean level of security feelings or in the form of distribution of security-insecurity scores from Maslow's norm population of 2,020 suggests that the norm presented in the test manual may be used for interpreting scores of ICC students. Also, that only 7 of 75 items of the inventory were answered very differently by Day and Night students suggests that although the S-I Inventory was validated and normed on students between ages of 17 and 23, it may be used with Night students at Illinois Central College.

Implications for Instructors

Out of a given class of 20 Day students, 3 may be seriously neurotic, 12 may tend to be insecure or feel an average sense of security-insecurity, while 5 may be psychologically secure. Of a class of 20 Night students, 2 may be seriously neurotic, 8 may tend to be insecure or feel average security-insecurity, and 10 may be psychologically secure. Although these figures likely vary in practice, it is probable that every class at Illinois Central College contains a few students whose behavior may be relatively dominated by efforts to satisfy security needs.

Maslow theorizes that higher order needs such as self-actualization, and concomitantly, the fullest creativeness, may not be translated into behavior until propotent, lower order needs are relatively satisfied.[4] Thus, instructors at Illinois Central College seeking creativity in students may need to facilitate satisfaction of students' security needs in order that students may be free to express creativity.

Research cited in Chapters I and II indicates the insecure person may be more dogmatic and less effective in critical thinking, probably because his perceptual field narrows and important information is excluded. The secure student may achieve higher grades than the insecure, likely because he is more efficient and effective in critical thinking. Considerations such as these cannot be ignored by classroom instructors who seek to develop students' critical thinking abilities.

---

[4] A. H. Maslow, "Theory," p. 383.

Instructors should learn to recognize insecurity in student behavior. Through warm encouragement, success experiences, increased individualized attention, and other teaching techniques, instructors can seek to alleviate students' feelings of insecurity. Instructors can avoid creating insecurity in students, e.g. through the excessive use of threats of failure, as well. Students who do not respond to techniques available to instructors within the practical constraints of classroom demands, and whose behavior continues to be dominated by a pressing need for psychological security, should be referred to the counseling offices of the junior college.

Implications for Future Research

Many possibilities for needed future research are suggested by this initial study of security-insecurity. Questions asked in the following four paragraphs might be used as the basis for hypotheses of future research.

Is the S-I Inventory valid as a measure of psychological security-insecurity with current junior college populations? Of most importance is the need for junior college counselors to clinically validate the S-I Inventory with current populations of students. Does a student's score predict, or accurately reflect, for example, his general state of mental health? Once validation has been more fully established with current populations, the inventory may be used with increased confidence as a quick and effective screening device for locating students seriously in need of counseling help. That one student at ICC who scored Very Insecure was referred to a mental health agency after interpretation of her test score indicates the instrument is valid with current populations; however, further support for this validation is needed.

What is the causal relationship of variables within the junior college environment to psychological security-insecurity of students? Very little can knowingly be done to identify or change conditions in the environmental press of Illinois Central College that cause feelings of security or insecurity until such studies point the way.

What effects does security-insecurity have on classroom performance? The finding that insecure students achieve lower grades than secure students needs to be confirmed by further research. Again, the causal relationship needs to be determined. For example, do insecure feelings cause, or contribute to, low grades, or do low grades create the feelings of insecurity? Will techniques of warm encouragement, success experiences, and increased individual attention satisfy student needs for security?

At what level do feelings of psychological insecurity narrow one's perceptual field, block critical thinking, and contribute to dogmatism in thinking? Is a certain amount of insecurity useful as a motivating force? At what point or level does a student's feelings of insecurity become so intense as to contribute to his academic demise? Is insecurity useful within the counseling relationship, and if so, at what point does it become detrimental to client progress?

Studies designed to answer all or one of the above suggested questions would provide valuable information for junior college staff. Only when needs of students are more fully understood can the junior college further its accomplishments as a student centered institution in all programs offered.

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APPENDIX A

Letter of Invitation

ILLINOIS :
CENTRAL : Public Junior College District No. 514
COLLEGE : P. O. Box 2400, East Peoria, Illinois 61611

April 9, 1969

Dear Student:

Illinois Central College is conducting a survey of its students in cooperation with Illinois State University. This survey is an important undertaking in our efforts to know more about our student body.

You have been chosen to help us in this important endeavor. The only requirement is that you answer a short questionnaire. This will require 15-20 minutes of your time on any of the following days or evenings:

DAYS	EVENINGS
April 17, 8:00 A.M.-5:00 P.M.	April 16, 6:00 P.M.-9:00 P.M.
April 18, 8:00 A.M.-5:00 P.M.	April 17, 6:00 P.M.-9:00 P.M.

Please report to the Counseling Office when you are on campus during the above times. We will direct you to the building and place where the questionnaires are being completed at that time.

Sincerely,

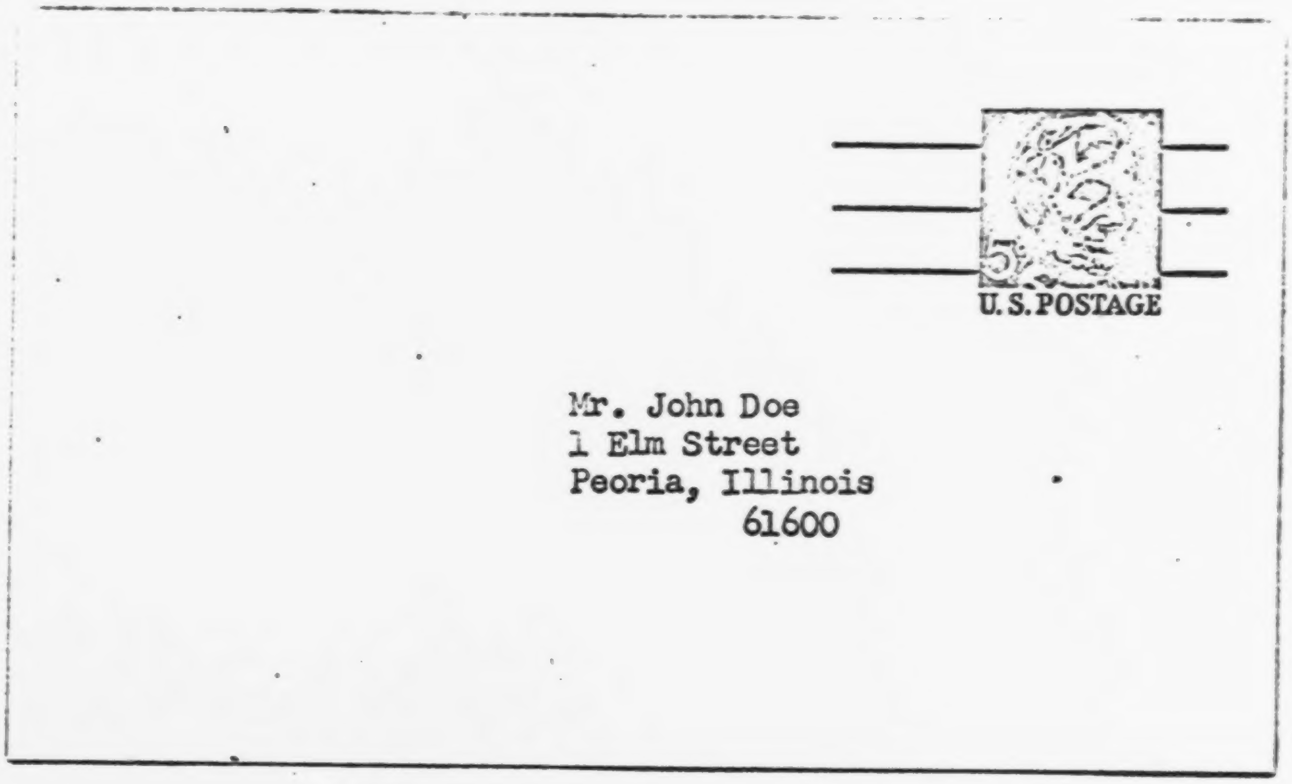
ILLINOIS CENTRAL COLLEGE

Merlin C. Stratton
Director of Counseling

MCS:ds

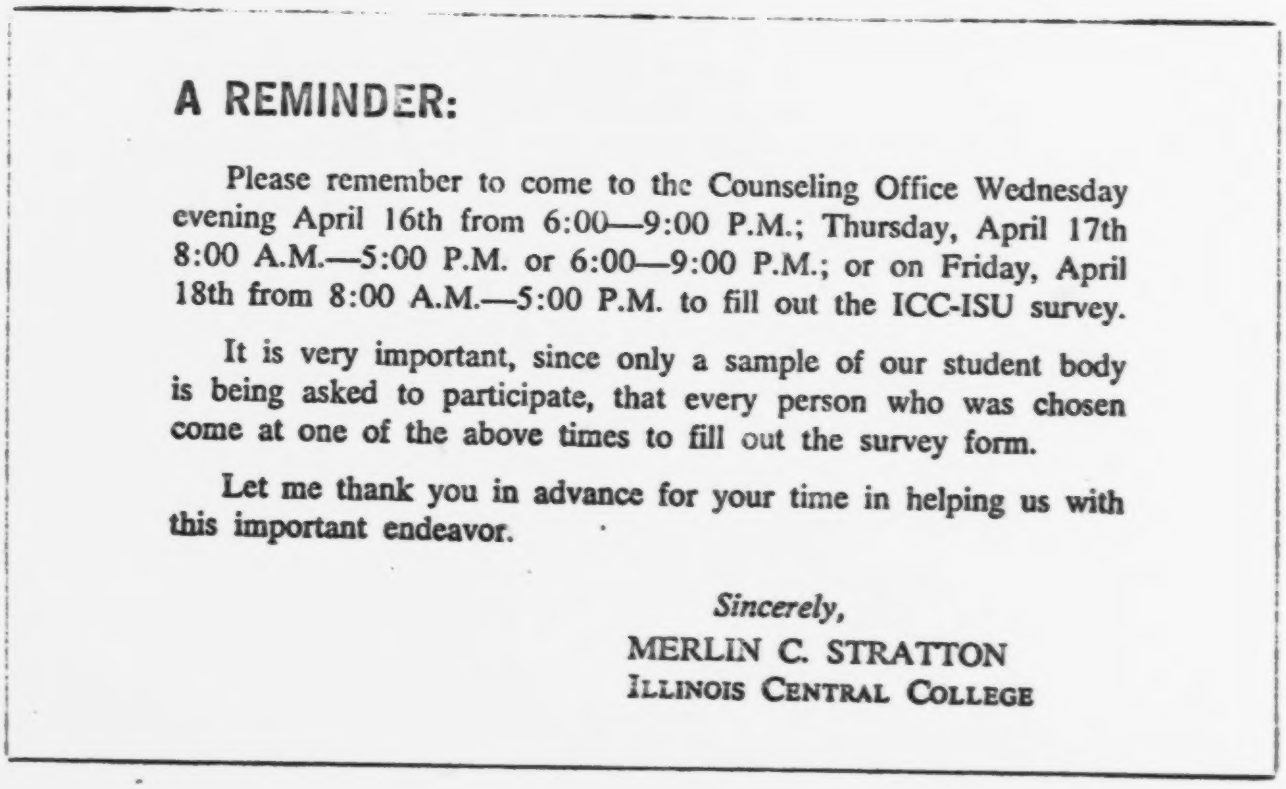
APPENDIX B

Reminder Postcard



5
U.S. POSTAGE

Mr. John Doe
1 Elm Street
Peoria, Illinois
61600



A REMINDER:

Please remember to come to the Counseling Office Wednesday evening April 16th from 6:00—9:00 P.M.; Thursday, April 17th 8:00 A.M.—5:00 P.M. or 6:00—9:00 P.M.; or on Friday, April 18th from 8:00 A.M.—5:00 P.M. to fill out the ICC-ISU survey.

It is very important, since only a sample of our student body is being asked to participate, that every person who was chosen come at one of the above times to fill out the survey form.

Let me thank you in advance for your time in helping us with this important endeavor.

Sincerely,
MERLIN C. STRATTON
ILLINOIS CENTRAL COLLEGE

APPENDIX C

The Instrument Package

START HERE, and please read ALL directions carefully. Answer all questions; if you do not understand what you are to do, please ASK the proctor who gave you this package.

FIRST, tear off the card attached above that has your name and number on it. Notice that the same number is printed on the upper right hand corner of each part of the questionnaire package. This number is your SURVEY IDENTIFICATION NUMBER. If you wish to discuss the answers you give to this questionnaire with a Counselor, you must present your card with IDENTIFICATION NUMBER on it to him. We will then be able to locate your questionnaire by its corresponding number; otherwise, NO ONE at ICC will know which questionnaire is yours. To ensure complete confidentiality of your answers, then be sure you DO NOT PUT YOUR NAME ANYWHERE ON THE QUESTIONNAIRE PACKAGE.

SECOND, please check the SCHEDULE and CURRICULA listing below and fill in these two blanks:

MY SCHEDULE TYPE IS________________

MY CURRICULA NUMBER IS _____________

SCHEDULE TYPE

Day Attendance	(indicates that you attend classes only from 8:00 A.M. to 5:00 P.M.)
Evening	(indicates that you attend classes only from 6:00 P.M. to 10:00 P.M.)
Both	(indicates that you take courses during the day and evening sessions)

CURRICULA

College Transfer Curricula, Leading to Associate in Arts and Associate in Science Degree

010	Pre-Agriculture
020	Art
030	Business Administration and Commerce
040	Education
050	Pre-Engineering
060	Liberal Arts and Science
070	Pre-Medicine
071	Pre-Pharmacy
072	Pre-Dental
073	Pre-Veterinary
074	Pre-Nursing
075	St. Francis Hospital

Career Programs Curricula, Leading to Associate in Applied Science Degree

100	Agriculture Business
101	Agricultural Production and Management
200	Accounting
205	Commercial Art
210	Business Management
215	Secretarial
216	Medical Secretarial
217	Legal Secretarial
218	Executive Secretarial
219	Co-operative Office Education
220	Office Machines and Procedures
221	Clerk Typist
301	Operating Room Assistant
310	Physical Therapy Assistant
320	Medical Record Technician
330	Registered Nurse
440	Architectural Drafting Technology
402	Engine Power Technology
403	Chemical Technology
404	Data Processing Technology
405	Electronics Engineering Technology
406	Industrial Electronics Technology
410	Mechanical Technology
411	Machine Design
412	Manufacturing
413	Internal Combustion Engines
420	Industrial Drafting Technology
601	Police Administration

090	General Studies
900	Continuing Education

THIRD, please fill in the following blanks:

Today's Date__________. My age is__________. Sex__________.

Marital Status (circle one) Single Married Divorced Separated Widowed

I graduated in the ________________________ third of
(top, middle, lower)
my High School class.

There were approximately __________ students in the High School I attended.

Optional: My religious preference is____________________.

FOURTH, please read the following general information:

The questionnaire is a survey of personality. It asks important and personal questions. Honesty, frankness and your sincere cooperation are required. The answers you give will be combined with those of approximately 400 other ICC students. As explained above, unless you identify yourself to a Counselor, the answers you give will remain confidential and will influence the survey results only as part of an average score.

This survey and the very important information it will yield will be no better than the accuracy with which you answer each question. Note: THERE ARE NO RIGHT OR WRONG ANSWERS, but only answers that are true for you.

FIFTH, turn directly to the GENERAL INSTRUCTIONS within the questionnaire itself. Read these directions and begin work. Work at whatever speed is comfortable to you.

THE S-I INVENTORY

A. H. MASLOW
Brandeis University

with the assistance of

E. BIRSH
I. HONIGMANN
F. McGRATH
A. PLASON
M. STEIN

NAME______________________________DATE_________AGE_____
(or pseudonym)

Underline one: Single Married Divorced
Separated Widowed

Education_____________________School____________________
(highest grade reached)

Occupation____

Height____________________Weight_______________________

Underline one: Catholic Protestant Jewish; or, if other
(write in)______________________________

Consulting Psychologists Press, Inc., Palo Alto, California
Copyright 1945 by A. H. Maslow
Copyright 1952 by the Board of Trustees
of the Leland Stanford Junior University
Printed in the United States of America

GENERAL INSTRUCTIONS

Read Carefully

If at all possible answer all questions, being sure to choose only one answer, "Yes," "No," "?" (undecided). Write an X under the answer that is nearest true for you. Your answers and any comments you may wish to add will, of course, be considered strictly confidential.

	Answers		
	YES	NO	?
1. Do you ordinarily like to be with people rather than alone?			
2. Do you have social ease?			
3. Do you lack self-confidence?			
4. Do you feel that you get enough praise?			
5. Do you often have a feeling of resentment against the world?			
6. Do you think people like you as much as they do others?			
7. Do you worry too long over humiliating experiences?			
8. Can you be comfortable with yourself?			
9. Are you generally an unselfish person?			
10. Do you tend to avoid unpleasantness by running away?			

	Answers		
	YES	NO	?
11. Do you often have a feeling of loneliness even when you are with people?			
12. Do you feel that you are getting a square deal in life?			
13. When your friends criticize you, do you usually take it well?			
14. Do you get discouraged easily?			
15. Do you usually feel friendly toward most people?			
16. Do you often feel that life is not worth living?			
17. Are you generally optimistic?			
18. Do you consider yourself a rather nervous person?			
19. Are you in general a happy person?			
20. Are you ordinarily quite sure of yourself?			
21. Are you often self-conscious?			
22. Do you tend to be dissatisfied with yourself?			
23. Are you frequently in low spirits?			
24. When you meet people for the first time do you usually feel they will not like you?			
25. Do you have enough faith in yourself?			

	Answers		
	YES	NO	?
26. Do you feel in general most people can be trusted?			
27. Do you feel that you are useful in the world?			
28. Do you ordinarily get on well with others?			
29. Do you spend much time worrying about the future?			
30. Do you usually feel well and strong?			
31. Are you a good conversationalist?			
32. Do you have the feeling of being a burden to others?			
33. Do you have difficulty in expressing your feelings?			
34. Do you usually rejoice in the happiness or good fortune of others?			
35. Do you often feel left out of things?			
36. Do you tend to be a suspicious person?			
37. Do you ordinarily think of the world as a nice place to live in?			
38. Do you get upset easily?			
39. Do you think of yourself often?			
40. Do you feel that you are living as you please rather than as someone else pleases?			

	Answers		
	YES	NO	?
41. Do you feel sorrow and pity for yourself when things go wrong?			
42. Do you feel that you are a success at your work or your job?			
43. Do you ordinarily let people see what you are really like?			
44. Do you feel that you are not satisfactorily adjusted to life?			
45. Do you ordinarily proceed on the assumption that things usually tend to turn out all right?			
46. Do you feel that life is a great burden?			
47. Are you troubled with feelings of inferiority?			
48. Do you generally feel "good?"			
49. Do you get along well with the opposite sex?			
50. Are you ever troubled with an idea that people are watching you on the street?			
51. Are you easily hurt?			
52. Do you feel at home in the world?			
53. Do you worry about your intelligence?			
54. Do you generally put others at their ease?			

	Answers		
	YES	NO	?
55. Do you have a vague fear of the future?			
56. Do you behave naturally?			
57. Do you feel you are generally lucky?			
58. Did you have a happy childhood?			
59. Do you have many real friends?			
60. Do you feel restless most of the time?			
61. Do you tend to be afraid of competition?			
62. Is your home environment happy?			
63. Do you worry too much about possible misfortune?			
64. Do you often become very annoyed with people?			
65. Do you ordinarily feel contented?			
66. Do your moods tend to alternate from very happy to very sad?			
67. Do you feel that you are respected by people in general?			
68. Are you able to work harmoniously with others?			
69. Do you feel you can't control your feelings?			

	Answers		
	YES	NO	?
70. Do you sometimes feel that people laugh at you?...................................			
71. Are you generally a relaxed person (rather than tense)?.................................			
72. On the whole do you think you are treated right by the world?..............................			
73. Are you ever bothered by a feeling that things are not real?...............................			
74. Have you often been humiliated?...........................			
75. Do you think you are often regarded as queer?..			

APPENDIX D

Form of Distribution Composite Sample
Score Frequencies

Classes	Frequency
72-75	0
68-71	0
64-67	0
60-63	1
56-59	0
52-55	1
48-51	1
44-47	5
40-43	4
36-39	7
32-35	8
28-31	16
24-27	18
20-23	15
16-19	28
12-15	30
8-11	29
4-07	30
0-03	10
Total	N = 203

APPENDIX E

Two-Way Analysis of Variance Showing Security-Insecurity Scores for Curriculum and Schedule Types

Curriculum Type	Schedule Type							
	Day				Night			
Transfer	45	28	24	15	34	14	10	5
	44	27	23	15	33	13	9	4
	34	27	21	13	29	13	8	4
	31	24	18	9	20	13	7	4
	30	24	18	9	16	12	6	4
	29	24	16	2	15	10	5	1
Terminal	47	29	17	11	37	22	13	6
	46	29	17	7	32	20	11	5
	42	28	17	7	28	19	9	5
	36	23	16	7	27	16	8	4
	36	20	13	7	24	15	8	3
	35	20	12	5	22	13	7	1